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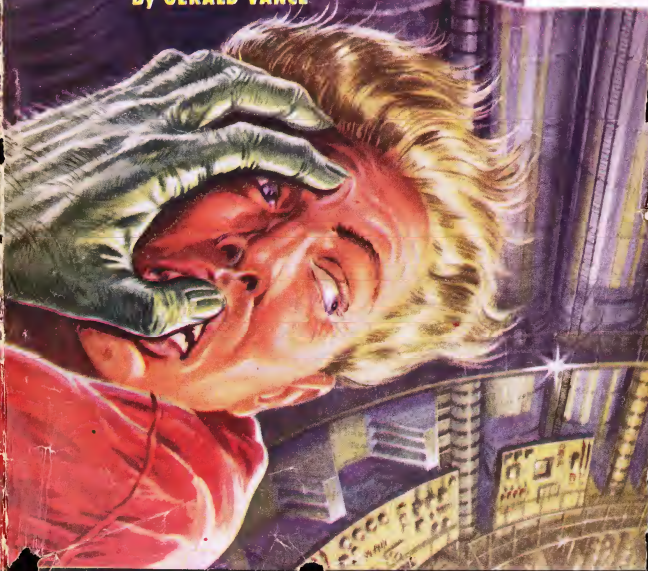
AMAZING  
STORIES

JULY  
1951

# AMAZING STORIES

**WE, THE MACHINE**  
By GERALD VANCE

STILL  
**164**  
PAGES



MEN AND A MACHINE HELD EARTH'S ONLY HOPE FOR SURVIVAL!

# MEN BEHIND AMAZING STORIES



---

CHESTER S. GEIER

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**Author of: "YOU'LL DIE ON GANYMEDE?"**

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**T**HIS IS NOT my first appearance in the author department of this magazine. It's my third, to be exact, and I'm a little worried that veteran readers are likely to raise the classic wail "Here's that man again!"

For the benefit of those who came in late, however, I might explain that I've been around as a writer of stf and fantasy for quite some time. My first story was published in 1941, and

since then I've been turning out fiction on a full-time basis.

I got my start in stf writing the same way many other stf writers got theirs—as a fan. While still in high school—Chicago's vast and beautiful Lane Tech—I met another fan by the name of William L. Hamling. Bill already had a sale to **AMAZING STORIES** to his cred't, and the realization that stf yarns were not only to

*(Continued on page 161)*

# Is High School High enough?

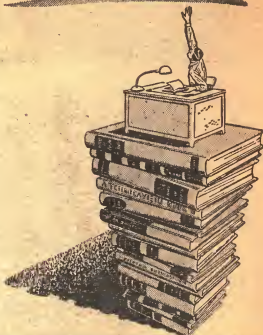
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JULY, 1951

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## — All STORIES Complete —

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**WE, THE MACHINE** (Novel—30,000) ..... by Gerald Vance ..... 8

Illustrated by Leo Remon Summers

Here is the strangest love story ever told: the passion of a man for a woman he did not know existed—until his job was to blow her lavars and panels to atoms!

**WHAT PRICE GLORIA?** (Short—8,500) ..... by Emmatt McDowell ..... 60

Illustrated by Murphy Anderson

One fast pass at Gloria and you'd be lucky not to develop a hole in the head. But Dan wasn't interested in passes; all he wanted was a nice return on his investment!

**"GOOD LUCK, COLUMBUS!"** (Short—5,000) ..... by Frank Robinson ..... 78

Illustrated by Gerald Hohns

Mark knew it was going to be mighty cold and lonely away up there in the black vastness of space, thousands of miles from home. But he'd be coming back—maybe!

**"YOU'LL DIE ON GANYMEDE!"** (Novelet—14,000) ..... by Guy Archette ..... 90

Illustrated by Dan Barry

The Ursoids of Ganyমেদে had good reasons for hating these bipeds from Earth. Not only had the invader taken their planet; he even wanted the skin off their backs!

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A motley, immoral crew—these followers of a Venusian called Mydor. And the worst of the lot was a renegade Earthmen whose dream was to destroy his home planet!

**THE SKY WAS FILLED WITH LIGHT** (Short—4,800) .... by H. B. Hickey ..... 134

Illustrated by Henry Sherp

A meteor was hurtling toward Earth, and every man was making out his will. But the women... maybe they had the right idea: ignore catastrophe and it will go away!

Front cover painting by Joseph Tillotson, illustrating  
the scene from the novel "We, the Machine"

.....

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The

# OBSERVATORY

..... by the Editor

BACK SOME seven or eight years ago, a young man, still in his teens, went to work in the mailroom of the Ziff-Davis Publishing Company—the firm that puts out *Amazing Stories* and *Fantastic Adventures*.

AS WE remember him from those days, he was a tall, gangling youth, with a shock of black hair constantly threatening to come down over his eyes, a prominent adam's-apple and, concerning science fiction, as inquisitive as they come. A lot of time he should have spent in delivering mail to the various departments of the company was used up in watching us put magazines together. He wanted to know the why and wherefore of every step in the process, from incoming manuscripts to the finished copies coming off the presses; he would demand to know why we bought such-and-such a story; he would have a great deal to say about the illustrations we selected; and he displayed an astonishing familiarity with practically every science-fiction story written since 1926.

SINCE HE was a likable guy, we put up with him most of the time. We answered his questions, we flinched only slightly when he pointed out our mistakes, and we threw him out of the office no more than once a week. A great deal of what he had to say made more sense, sometimes, than we wanted to admit, and

it got to the point after a while where his opinions were asked for. (Always in an off-hand way, you understand; after all, we were supposed to know all the answers ourselves!)

AND then one day the Navy laid a hand on our hero's shoulder and he disappeared from the eyes and the knowledge (as Edgar Rice Burroughs used to say) of men—namely the Fiction Group. We often wondered how he was making out, and whenever a new admiral was appointed, it always surprised us that it wasn't our former critic from the mailroom.

THEN, one day last summer, we found a manuscript in the mail that excited us very much. Not because of the author's name (at the time we hardly noticed what it was), but because it was an excellent story, written with skill and sensitivity. You'll find it in this issue, beginning on page 78, under the by-line of Frank Robinson. Since this first sale, he has sold to other markets in the field, and he's well on the way to becoming one of the top writers of science fiction. To him we can only repeat the title of his first story: "Good Luck, Columbus!"

BY THIS time you've had something to say, one way or the other, about the new slenderizing job we've done on *Amazing Stories*. Without sacrificing one word or a single illustration, we are able to give you a magazine that's easier to handle, easier to read and one that'll take up less room in your collection. Please note how much clearer and sharper the illustrations have become, how the fine detail—so often lost in ordinary pulp paper reproduction—now stands out the way the artist intended it to. We have reason to believe there'll be other changes in the magazine's format, although as yet they're not assured....

A FEW days ago we caught the preview of Hollywood's newest attempt at science fiction on film—a motion picture with the shortest title we can recall—Arch Obler's much heralded "Five". Here again is another example of the evils of sound in pictures; for "Five" is little more than a great many dull speeches by a few dull people in a very dull story. —H. B.



"Can't you learn to memorize a speech?"

## All aboard!

# THE ATOMIC EXPRESS

By

GLENN OTIS

IF YOU had talked with rocket engineers for the last two or three years, and had asked them about the future of rocketry, you would have gotten a doleful shaking of heads along with the remark, "...it ain't good, Bud, it ain't good!" This might startle you a bit in light of all the wild publicity rockets have gotten since the development of the V-2.

"My gosh," you'd say, "we're practically bound for the Moon, aren't we?"

Yes, we are, but still the future of rocketry hasn't looked too good. And there are definite reasons. Right now, rockets may be divided into three classes, roughly—solid fuel rockets, liquid fuel rockets, and—well, we'll talk about the third class shortly. Solid fuel rockets are simply familiar variations of the gunpowder-driven sky rocket and they're useful only for anti-aircraft work, etc. The second class, liquid fuel rockets like the V-2 and the Neptune are the ones the boys are playing with. These "chemical rockets" as they're called are in a high stage of development and soon some will be planted on the Moon—at first, remote-controlled and later, manned. Perhaps they'll even be used to take a man to Mars, but it is with heavy hearts that engineers have come to the conclusion that interplanetary travel dependent upon liquid rockets isn't going to be much. The fuel limitations are too great. There simply isn't enough energy in liquid fuels to permit men to scoot through gravitational fields as they'd like to. The sum and substance of this argument is that liquid fueled rockets can't carry enough energy to hop around the Solar System—Moon shots yes, maybe even a Mars shot—but not much more. In other words, the future of rocketry dependent upon the liquid fueled rocket is mighty, mighty poor!

What hope is there then of men conquering space if the picture looks so gloomy?

The answer is, of course, the atomic

rocket!

This baby has been a common feature of science-fiction for a long time. What are its real potentialities? How does one work?

The government has been releasing large amounts of information on the operation of atomic piles. Rocket engineers have gobbled it up, for it implies an answer to the rocketman's dream—a power plant of unlimited capacity, one which can take men around the System!

First of all, an atomic pile delivers its energy in the form of heat—tremendous, inexhaustible quantities of heat from the moderately efficient process of disrupting, fissioning atoms of uranium. An atomic pile, suitably shielded, mounted on a rocket, is a tremendous heat engine. How is this translated into motion? The answer is simple—and laden with hope. All you do is mount this pile in a rocket motor and then feed a gas, preferably hydrogen—to it. The gas heated to high temperatures develops tremendous pressures within the rocket motor and then is simply exhausted as reaction mass through the rocket tubes just like any chemical rocket. The difference lies in the vast energy output of the pile. And you don't have to feed hydrogen to it necessarily—almost anything thrown into the engine will be vaporized into a suitable gas—including any old shoes!

This third class of rockets—yet to be built (though no one really knows)—is the rocket of the future. It is the rocket which will conquer the System and perhaps someday bring the stars within reach! Hardly any information is released on the matter but it is a certainty that wherever men are building rockets in the world, the atomic rocket is on their minds and maybe on the drawing boards. And the United States with its enormous potential in atomic science is right in the driver's seat when it comes to bringing the hope to fruition!

## SPACE IN A BOTTLE!

by GEORGE LASKER

WHILE MAN will never be able to reproduce the emptiness and vacuity of outer space, he's doing a fair job of approximating it with present-day vacuum pumps. The most recent models are capable of exhausting cathode ray tubes (for television) and X-ray tubes to a pressure of a billionth of an atmosphere. That means that only one of every billion original molecules of gas remains in the tube after exhaustion!

That seems as if the tube is as empty as nothing and as slick as a whistle, but in reality there are still millions and millions of molecules remaining. Fortunately

these do, to all practical intents and purposes, not interfere with whatever is going on within the tube. Few people realize the importance and significance of vacuum work and the part it plays in modern industry. The creation of the atomic bomb and all the modern electronic devices has helped to demonstrate the utility of this formerly esoteric art.

Unfortunately (or fortunately?) the days of the high vacuum technician are numbered. As soon as men get rockets to the Moon, you'll have all the vacuum you can use—and a better one at that. Just open your bottle or tube and the thing is really empty! You can't beat Nature!

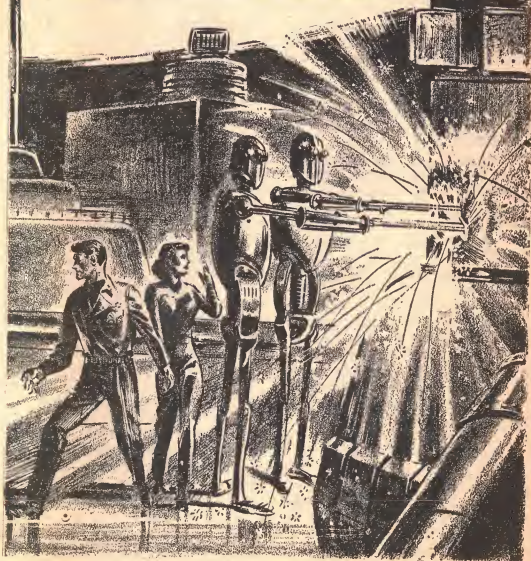
# WE, THE MACHINE

BY GERALD VANCE



Slowly our defenders were falling back. Would the stubborn metal melt in time?

**A vastly complicated machine kept  
mankind from total chaos. What would  
happen if it suddenly became insane?**





**D**EEP IN the heart of the earth, the Machine is crying. Above—on the surface of the earth—all is changed. The Golden Age is finished. The high crest of another civilization—the most exquisitely perfect civilization ever conceived—has passed, and man once more starts down the long swale into darkness.

Above this subterranean room in which I sit, the darkness is already setting in, like weeping mothers burying dead sons in the rain. Down here—around me—the Machine sobs out its last moments and there is little to say.

Except that we built this colossal, soulless Machine—and then we broke its heart.

Strange will be these words to the men who find them in other times—other ages—other eras of human struggle toward the glittering successes we achieved and the sickening mistakes we made. But it must be told—the story of what we did and what we had; and how the shattering failure came about. Without this record for tomorrow's man, we shall have served no purpose whatever and our name shall be Futility.

So the last task remains for me—the telling. Read—man of the future. Believe. And take heed as I tell you of the Machine. Take heed, for your own fate is involved.

\* \* \*

**M**Y NAME is Lorn Morrison. Only a few days have passed since the morning I had nothing more important on my mind than a manuscript I had just finished. In this age of leisure, where every man selected his own pursuits, I chose to be a Novelist. I lived comfortably in the city of Baltimore with a room-mate, of my choice, who found pleasure in activities as a Spectator. He

went from place to place observing the activities of Athletes and Actors. He was well up on current tastes and an excellent critic of popular fiction.

We were at the breakfast table on the morning to which I refer, and he had just finished reading my manuscript. He put down the last sheet, frowning thoughtfully.

"Well?"

"It's your best so far. But you can do better."

"Do you think the Machine will like it?"

"It liked the last two."

I shrugged. "Twenty-five copies of the first."

"And five hundred copies of the second."

He pushed the manuscript across the table toward me. "I'm betting on five thousand copies of this one. Are you submitting it today?"

"Yes. I'd better get started if I want to get back for dinner. I'll help you clear the dishes first."

"Never mind. I'll do it."

I went for my hat and jacket. When I returned through the dining room, he was just putting the last of the dishes into the suction tube through which they would be returned to the central sterilizing depot in Chicago. "Luck," he said.

I thanked him. Then—with the door half open—I turned back. "How many dishes," I asked, "would you say are now flying back through the tubes toward the sterilizer?"

He looked up in surprise. "How many? Why good lord, man! How should I know? Besides, what difference does it make?"

"None, I suppose. But somehow your answer—'What difference does it make?'—seems important to me."

"I don't understand you."

With a sudden movement, I closed the door and dropped into a chair

nearby. "No—I suppose you don't. I hardly understand myself."

Immediately my room-mate's face cleared. "I think I do know what's wrong with you. Overwork on that book of yours. You probably don't realize it, but you're taking on the characteristics of LeMonson, your fictional protagonist. I'd suggest a couple of weeks in the Florida Gardens or the Northern Winter Resort."

"Maybe that's what I need, but still—I'd like to ask you a question—that is, if it won't offend you."

"Ask ahead. I'm not sensitive."

"Very well. Have you ever—during your whole lifetime—felt one iota of gratitude toward the Machine in return for what it has done for you?"

He was truly bewildered now. "Gratitude? Why of course not. Why should I?"

"Do you ever stop a moment to consider that in ages past, men worked hard all their lives for only a small portion of what the Machine gives you every day without charge?"

"Possibly I have. I don't recall."

"I've thought of it many times."

"And your latest book shows it. But your line of thought is unhealthy and erroneous. You forget the Machine is the product of *our* minds, *our* know-how in ages past, *our* ability to create the perfect civilization."

"Again you are no doubt right. But your words bring forth another question: Can you point out to me just one man or woman living in America today who knows anything whatsoever about the Machine? Who has the vaguest concept of its mechanics? Who has the least interest in what goes on under the earth?"

He was turning a trifle hostile now. "No—I cannot. But my answer is this: When man finally achieved perfection in the form of the Machine, he recognized it for what it

really was—a reflection of his own ability, and as such, he reaps its benefits."

I wanted to ask—*What perfection in you or me does the Machine reflect?* Instead, I replied, "I think you're right—I do need a vacation. Wish me luck with my book." With that I left the house and went out into the street.

**THE MACHINE**—*in all its vast entirety—was conceived by Gideon Lee, who worked ceaselessly toward its perfection during all the latter years of his life. He died in the year 2155.*

That passage, written into the manuscript I carried, ran again across my mind as I walked through the Baltimore streets toward the passenger tube depot.

After Lee died, a number of other major scientists took up the work. Two hundred years later, they were all gone—or rather, they *are* all gone, because that time is now. But all around me, as I approached the tube terminal, were the benefits to mankind of the colossal, smoothly working, self-sufficient Machine.

The Machine fed, clothed, and sustained two hundred million people within the boundaries of the most powerful nation on earth, Middle America. Its operations were so complex and prodigious as to be entirely beyond comprehension. A concept of it can be vaguely gotten when one views it from the vantage point of its achievements. And these achievements were so vast they could only be viewed singly.

Three times a day and also upon individual demand, the Machine sent food—ready for consumption—into every registered home in the nation; this, in all directions from its central kitchens, the exact location of which not one person in a million knew nor cared to know.

The Machine—through an entirely separate distributing system—kept thousands of clothing stores stocked with garments of all sizes—in an amazing number of styles and patterns. Nor did off-size citizens go unclothed. At every distribution point a robot tailor took measurements and one of the tubes from Chicago delivered the finished garment in thirty minutes. If the material was out of stock and required weaving, the waiting time was fifteen minutes longer.

The Machine maintained, night and day, year in and year out, an impregnable defense system at the borders of the country; a ray-system so formidable that no envious nation had ever tried to invade Mid-America.

The Machine conducted, automatically, an Immigration System based upon its capacity to serve the people. A certain quota of foreigners were allowed to enter yearly. But the Machine analyzed each mind so completely that no spy or hostile agent had ever entered the American Utopia.

These were but a small number of the end-products of the Machine; products which totaled complete emancipation of the people; freedom to conduct themselves entirely as they saw fit; leisure to pursue hobbies and follow paths leading to personal happiness.

Utopia.

But as I took my seat in the tube car which would carry me to Chicago in a scant ten minutes, the questions were in my mind: Am I the only person in two hundred million who does not view all this with complete acceptance and disinterest? Am I the only one who wonders about the vast processes going on under the earth that make it all possible?

As I quitted my car in the Chicago terminal and walked among the un-

hurried, contented people who moved toward the exits, I recalled the words of my room-mate: "You are a novelist, a good one. It follows that you are a trifle peculiar in your thinking."

I boarded a local car for Station 37, where all writers and composers submitted their works, and now my mind was full of my own problems. Suppose the Machine rejected my novel?

THE MAN seated next to me with a brown manuscript case on his knees smiled as he glanced at the thick sheaf of copy I carried.

"You are a Novelist?"

I replied that I was. "My name is Morrison."

His eyes lighted. "I know of you! The Machine delivered me a copy of your second book. My name is Danley. I write musical comedies." Danley made no further comment upon my second novel; he had no word for its quality or its lack thereof and I expected none. The fact that he'd received my book proved that he had liked it, because—

*The Machine was sole judge of all creative work. No man could publish his own because only the Machine had such facilities. It examined the material and knew immediately how many citizens—if any—would care for it. This information it gleaned from its Brain Plate Files. In the case of a novel, the Machine printed and delivered the exact number of copies which would be read and enjoyed. Musical and dramatic works were delivered to the Musicians and the Producers and were piped into homes where they would be appreciated. This was another detail of cultural life attended to by the Machine.*

"Have your works been produced?"

I asked.

"Only one," Danley replied ruefully. "A one-act, popular thing that

played to sixty-four video plates."

"My first book went only twenty-five copies."

"Is that so?" He sighed. "I guess it takes time."

"Yes, it takes time," and I followed Danley from the tube-car and went into Room 10 of Station 37.

Only two other authors were in the room. They had already submitted and were now awaiting the verdict of the Machine. The elder of the two, a middle-aged man, seemed supremely confident. He sat back completely at ease and stared at the ceiling as though the plot of his next story was already forming.

The younger man sat beside the dispenser from which a lighted cigarette was held forth by two steel fingers whenever he raised his hand to break the electronic beam. He smoked the cigarettes in short nervous puffs and eyed the bulk of the manuscript I pushed into the submission slot. Now I, too, sat back to wait.

Almost immediately the green signal light flashed and the elderly man came forward to the panel. He watched as copies of his book began feeding through behind the green plate. They moved past slowly at first and I could read the title—*Morning of Promise*. Then they began flowing faster while the dial high on the wall recorded their number. The dial stopped at 896; the last book vanished toward the distribution tubes and two copies popped out of the wall into the author's hands.

The man stood there for a minute. The frown on his face made his disappointment quite evident. Then he thrust the books under his arm and strode out into the street.

"He must have expected more copies," the young man said.

"I guess we all expect more than we get."

"Not me. I wrote a volume of poe-

try. I'll be satisfied with the minimum. Very few people like poetry."

Now another light on the board. Sadly, a red one. The young man got to his feet, put out his cigarette and thrust his hands deep into his pockets. The red light meant a rejection.

"Guess I'll have to try again," the youth muttered. He went to the panel—to the return slot—to retrieve his manuscript.

But there was some delay. The script was not immediately forthcoming. Both the young man and I were surprised by this—both having been here before and being familiar with the precision of the Literary Robot buried deep in the earth.

Then a bell rang—the recall bell—and a single, leather bound volume came out of the slot. Surprised and pleased, the young man fingered the volume. It was beautifully done, with his name written in gold leaf on the cover. He smiled and hurried away.

WITH NOTHING else to do, I gave thought to the incident. Ten books, I knew, was the minimum the Machine would produce. Yet, in this case, it had presented the author with a single copy. For some reason, the Literary Robot had salved the youth's ego. A slight shock went through me as I thought:

*The Machine is an absolutely mathematical mechanism. Yet what I had just seen was a gesture springing from humanity. Mathematics and humanity do not mix. How can the Machine be personal and impersonal at the same time?*

But I was to see more irregularity, immediately, as the green light brought me erect and to the panel. Five thousand copies, I thought. At least five thousand. It's a good book.

But no volumes were forthcoming. Only dead silence in the room, the green light shining, the volume-count

dial unmoving. Thus things remained for an interminable time while I stood there filled with definite and sudden fear. It was a fear I could not explain, yet it was present, tangible in my mind.

No occurrence such as this had ever before come to pass in Room 10 of Station 37—of that I was certain. This was the first time on record that the green acceptance light had flashed and no books had been forthcoming. My throat was dry and my legs shook in weakness.

Then the light over the rejection slot glowed and the slot door opened. Automatically, I held out my hand and a slip of white paper came forth. My fingers clutched it, turned it, raised it. Printed in small, block letters were the words:

LORN MORRISON—27yj459x. YOU WILL BE NOTIFIED IN DUE TIME.

That was all. My name; my code number in the Brain-Plate Files. A brief message.

I glanced swiftly about the room with all the look of a trapped, bewildered animal. Something had gone wrong! Something out of the ordinary had happened and I was involved in it. I turned and fled out into the street—up the avenue until I came to a refreshment booth. I went inside and punched one of the buttons under Alcoholic Depressants, not noting which particular drink I had ordered.

I waited while the ray-beam tested me for intoxication. As I had not been drinking, it found none, and the drink came from the slot as ordered. I tossed it off and went again into the street.

Something had happened and I was involved! I walked on aimlessly, nervous as a cat until the alcohol began

asserting itself and my nerves calmed. Slowly my mental equilibrium returned. Above me the sun shone down on the great glittering buildings lining the avenue; past me walked men and women, their faces free of fear, worry, or tension. This was Mid-America, and deep in the earth for miles and miles around the central area of Chicago, the Machine throbbed and worked, infallibly producing and delivering for the comfort and well-being of these people.

Twenty-four hours a day it served them, a slave of inconceivable magnitude. It awoke them gently from a sleep made deep and dreamless by electronic impulses projected from outlets at their bedsides. It delivered their breakfasts—food grown in vast subterranean hydroponic gardens and processed with mechanical exactitude that was perfection. It provided them with every facility for amusement and physical or mental exercise and stimulation.

If they fell ill, this was recorded instantly in some great recording room where the particular wavelength of every citizen was on file. The location was ascertained by multiple finders and gentle Casualty-Robots were dispatched to carry them to the nearest mechanically operated hospital.

Year after year, decade after decade, the Machine functioned tirelessly. And as I walked down the street in Chicago, the thought came, warm and comforting: It functions for me! There is nothing to fear!

A vacation. That was it! What I needed was a few days in Florida Gardens. That would put me right. I would go to Florida.

THE ONLY requirement was the decision to act. I turned the next corner and made my way toward the central terminal. A tube car had just



left from the Florida Express platform, but immediately another came soundlessly forward to take its place. I entered and took a seat in the lounge and picked up the latest copy of a picture-news magazine.

The magazine was a perfect example of "the ultimate in pictorial and reportorial art. As no citizen or band of citizens cared to labor over such a periodical, it was issued by the Machine itself as a service to Mid-America, the photos coming from the automatic cameras set up in hundreds of thousands of spots throughout the nation—its copy written by the photo-electric interpretation-robots somewhere in the earth.

But the magazine did not interest me at the moment and I leaned back and closed my eyes. I must have dozed for a few minutes, because when I opened my eyes, I was in Florida and the speaker-robot from the terminal platform was suggesting:

"There are excellent accommodations open at the Ocean View Hotel. If you prefer rest and seclusion, there are the bungalows available at the Copley Retreat. Local car Number Four. Please watch your step."

I went directly to the information booth and spoke into one of the transmitters. "Is there any message for Lorn Morrison? 27yj459x?"

The Machine had found, from tests, that the modulated, young-female voice was the most soothing. The words came back to me, gentle, friendly, warm. "Just one moment, Mr. Morrison. I will check for you." Then, "I am sorry. There is no message."

I turned away. But an odd humor seized me. I felt the urge to do a senseless thing—something that had probably not been done ten times in two hundred years. I returned to the transmitter and said, "Thank you

very much."

A passerby heard me and turned in wonder as I stood there, but I scarcely noticed the man's justified surprise. My mind was intent upon the question of whether the Machine had an answer for such a useless courtesy or whether I would be ignored.

There was a pause, a moment of dead silence as though the mechanism were at a complete loss. Then the words came back: "You are entirely welcome, sir."

And was I wrong in feeling the reply to have even more of a human quality than the previous, perfect robot-words? Probably, I thought. After all, the Machine was a soulless mechanism built by man to serve him: I was merely a fool who was still walking around under the spell of a book he had written. A fool who had better snap out of it and start thinking healthier thoughts or he'd soon find himself under observation in the mental ward of the closest hospital.

I boarded the local car and was soon stretched on a lounge in one of the bungalows at the Copley Retreat. I closed my eyes and breathed the pure air fed in through the ventilators by the Machine.

As my brain slowed down and the electric impulses therefrom lengthened, the Service-Robot took note and the music permeating the room drifted to a whisper of violins and faded completely.

I slept.

But soon a young-female voice awakened me gently, saying, "Mr. Lorn Morrison. Please call at Room 21, Building 8, in Chicago. This concerns your latest book, *Silence on the Wind*. Mr. Lorn Morrison, please acknowledge for the records."

"Message received," I mumbled.

But this time I did not say thank you. Again the fear was in me. Something extraordinary had happened

and I was involved in it.

I was afraid.

\* \* \*

**A**ROUND me, man of the future,  
I can feel the quivering agony  
of the dying Machine. The Workers  
wander—dazed and dull-eyed—up  
and down the shining corridors of  
growing desolation. The minor  
Scientists stare blankly at reostats,  
dynamos, and atomic power packs  
that inexplicably refuse to function.

The Machine is expiring, but that,  
tomorrow's man, is not the great tragedy.  
The death of the Machine is  
only a by-product of this colossal  
folly. Read carefully, that this folly  
may not one day become yours.

\* \* \*

**W**HEN GIDEON LEE, the great  
scientist—the Father of the  
Machine—died in the year 2155,  
there was great mourning throughout  
the nation. The Music-Robot played  
his favorite songs, and busts were  
erected in public places. A week later,  
the transportation-Robot, one of  
the greatest facets of the Machine and  
a major triumph of Lee's brain, began  
functioning smoothly and the people  
forgot their sorrow in the thrill of  
traveling from New York to Los  
Angeles in nineteen and a quarter  
minutes.

**U**PON THE morning following the  
receipt of the message, I boarded  
a tube-car for Chicago and presented  
myself in Room 21, Building 8.

It appeared to be an entirely useless  
room in that there was no furniture  
save one straight-backed chair; no  
cigarette vendor; only four bare  
walls and a low ceiling. There was no  
signal button I could press so I had  
nothing to do but stand and wait.

But not a long wait. Almost at  
once a door opened in what had ap-

peared to be the solid rear wall of  
the room. A young woman was standing  
inside. She said, "Good morning,  
Mr. Morrison. Would you please  
step inside?"

Mutely I obeyed and discovered  
"inside" to be a chromium walled  
corridor so long as to become-lost in  
the distance; greatly like a perspective  
painting of a railroad track so  
dear to the hearts of art students—the  
track diminishing to a vanishing  
point far away.

The young woman was quite attractive—dark of hair and eyes—and she  
wore a rather contour-revealing uniform  
of blue material. However, I got  
the impression that the main purpose  
of the uniform was freedom of  
movement and utility rather than an  
attempt to make the female form  
attractive.

She regarded me from under long  
lashes with neither shyness nor any  
great cordiality; but rather pensively  
as though I were just another problem  
in an endless string of problems;  
something to be solved and disposed  
of.

Now she smiled. "My name is Lorraine  
Dillon, Mr. Morrison. We were  
notified of your coming and I have  
instructions to help you acclimate  
yourself and to answer your questions;  
to show you around and make  
you feel at home."

Questions. I had one on the tip of  
my tongue: "You said *we*, Miss  
Dillon. It is—Miss?"

She nodded.

"You said *we*. Just what does the  
term encompass?"

"Why—we, the Machine, of  
course."

"Of course," I replied. "How stupid  
of me."

"Not in the least stupid," she returned  
with deep seriousness. "Your  
mind is full of questions and it's my  
job to answer them. That particular

answer told you nothing—"

She stopped and stood regarding me in that odd abstract manner that made me feel like a problem in calculus. Then she spoke with decision.

"It might expedite matters if you understood certain basic conditions immediately. First, my mind is highly trained, as yours will no doubt also be trained. I know, by coming in contact with your brain waves, the exact extent of your ignorance concerning the underground picture, so to speak—the area in which the Machine has the greater part of its bulk and operation."

"In that case you can probably bring my knowledge up to the required minimum without my bothering to ask questions!"

HER LOOK became slightly more personal and definitely more quizzical. But when she spoke there was no more warmth in her voice than before. I was still something on a drafting board.

She said, "Your mental makeup and approach are admirable. They would be, of course, but I hadn't expected such an excellent emotionless grasp. I wonder why you were sent for?"

This last certainly uncovered emotion on my part. "You don't—*know* why I was brought here?"

"I haven't the least idea."

"But you knew I was coming."

"Certainly. I was sent to receive you."

I had no reply immediately forthcoming and there was a moment of silence, after which Lorraine Dillon said, "First I'd better show you to your quarters. We can step into a tube-car if you wish, but they are only a short distance down the hall."

"Then we might as well walk."

She started down the hallway with a long lithe stride that suggested com-

plete competence, and I fell into step beside her. After a few paces, she glanced over at me and said, with deep seriousness:

"Concerning your previous observation concerning questions—my reaction is in the negative. Regardless of my visualization into your mind, it is still better that you ask any questions that come to you. An answer to a question reacts more sharply into the memory than information given without specific request. You see, after an inquiry, the mind waits to receive an answer and the attention is sharper. Whereas—"

"That's quite understandable," I cut in with an abruptness I immediately regretted. "I wonder if you would tell me what your duties are—ah, how you fit in down here?"

"I am a Brain-Wave Specialist, a Scientist—Minor of course. There are no Majors left as we have no need of them. I understand the functionings but not the principles governing or creating those functionings—"

"In other words, you have never been privileged to study directly under God."

She did not break stride, but she turned her head and her large dark eyes were upon me. They could have been rightly described as limpid pools of loveliness. But in this atmosphere and under these conditions, such a compliment seemed the absolute height of asininity.

"It will be a little more difficult than I thought," she said.

"I don't understand."

"I should have known that it would be, from reading your last book."

This startled me. "Do you mean *Silence on the Wind*?"

She nodded.

"Then it was published?"

"Yesterday afternoon. It was required reading down here. I found a copy when I went off duty."

I SMILED unconsciously, then felt her eyes upon my face. I think I flushed slightly just before her madly abstract observation:

"That bolsters your ego, doesn't it?"

There was no accusation or contempt in her tone. It was as though she'd said: "If you touch an electric wire to the body of a dead frog, its leg will kick."

I back-tracked hurriedly. "You just said it would be more difficult and I told you I didn't understand."

"You have a streak of cynical humor in your personality that insists upon expression."

"That's—bad?"

"Yes—in that it tends to dull the perceptions and also serves as a mental buffer against certain unattractive truths."

"And what about unattractive untruths. Doesn't a sense of humor then become an asset?"

She regarded me somberly. "Untruths are illusions. They do not exist."

My sigh was gusty with exasperation. "Thanks for putting me straight. I always thought they did."

Our conversation was broken off at this point as she turned away from me toward the wall and separated a light-beam switch that opened a door. "Welcome to your quarters," she said, with a dead sobriety that reminded me of a little girl speaking the lines of a poem she did not understand.

"Thank you."

She insisted that I precede her, then followed me inside and the door closed silently after us. It was a fairly large, pleasant room with every convenience to be found in the upper world.

The girl looked at me with a trifle of uncertainty, then stepped to the wall. "This might please you," she

said, and pressed a button whereupon a small bookcase swung into view. Upon it were three volumes. My novels. I smiled.

"It does please you."

I made no effort to keep from frowning. "Of course it pleases me! Why do you think I wrote them?"

"I supposed you did it as a service which only you were able to perform for the people."

I was beginning—in a vague way—to understand the beautiful Lorraine Dillon and unconsciously allowed my unspeakable emotions to burst forth. I reached forward and took both of her hands in mine. My smile was far from impersonal. I said:

"Hello, Lorraine. It's wonderful to know you. Down in Florida the moon is shining over the palm trees and a lot of girls are being kissed. Would you like to be kissed?"

She bit her red lower lip and seemed to be contemplating using another thumb tack in order to hold me on the drafting board. She did not draw her hands away, but that was no compliment. They could as well have been lying in her lap.

She said, "You are in error. The moon will not rise over Florida for another five hours and ten minutes. As to your question: The answer is no. I have no need for any such stimulation as I have no desire whatsoever to reproduce."

"Yipe!"

I HEARD the exclamation croaked out and realized that it came from me as I backed hastily away from her.

Her eyes grew larger and she seemed to be probing frantically into my mind. "Are you ill?"

"No. There is nothing wrong with me I can't cure by adjusting my brain-waves." I dropped into a

chair and signalled for a cigarette. It came out of the wall and I pulled deeply of the smoke. "I hope you'll pardon my rudeness, Miss Dillon. It was merely my way of discovering abstract truths. Won't you sit down?"

"You have a most interesting brain pattern," she said as she accepted my invitation.

"Thank you. And now for some questions if you don't object."

"I'm here for that purpose."

"First, neither of us knows why I'm here so there's no use probing in that direction. But it comes to my mind that I expected to find no other humans. I was wrong. Tell me about the people underground."

"There are the Minor Scientists and the Workers."

"Why are they here?"

"In order to perform certain duties relative to the Machine. In order to cooperate, in a small way, in its work."

"You aren't scanning my brain very well or you'd know my question wasn't slanted in that direction."

"Oh—I see. We are here because we want to be; because none of us can visualize a worse fate than living away from the Machine. The Machine did not order us here and it does not compel us to stay. Ours is a labor of love as yours will be."

"How can you say that when you don't know why I'm here?"

"Because I *do* know this—that nothing is holding you. You are entirely free to return to the surface at any moment you choose."

"How many people are underground?"

"Forty-three, all told. The number never changes. If a death occurs, the deceased is replaced."

"Who am I replacing?"

"No one. My statement was not

quite true as I did not include you. There are now forty-four. You are the first addition to the crew since it reached its norm one hundred and fifty years ago."

"That's quite interesting, isn't it?"

"Extremely so."

"Why do you *think* I was summoned?"

"I never conjecture. It is a waste of time. There are not enough components to form a workable equation. Therefore no answer can be forthcoming."

"Will I meet the other people?"

"If you wish. You are free to come and go as you please. You are not to be restricted in any way."

"From whom did you receive your orders concerning me?"

"From the Machine, of course."

I stopped a moment to ponder this and the girl arose from her chair. "If you have no more questions at the moment might I suggest you get some rest and allow your brain to assimilate your fresh knowledge. In the morning I will take you on a tour of the Machine."

"Do you think the Machine will talk to me?"

"I'm sure it will—when it is quite ready."

"It will give me my orders also?"

"I presume it will."

**I** SUDDENLY realized what I was trying to do—to annoy this girl, to break through what appeared to be a pose, to find the human being underneath. So far I had not succeeded.

"Would you object to telling me what I am thinking about at the moment?"

"Certainly not. You are debating whether or not to kiss me. You are rather vaguely wondering what my



reaction would be."

"What would it be?"

"There would be no reaction whatever. I think I told you the reason."

"Have I offended you?"

"Of course not. From some cause I can't determine, you resent me even though I am entirely sincere in every way. Perhaps I should apologize."

"I'm the one who should beg forgiveness, Miss Dillon."

"I suggest you call me Lorraine. It makes for greater efficiency of speech. I will call you Lorn, as will everyone else you meet."

"Thank you. And now, with your permission I believe I'll rest and assimilate knowledge."

"That will be wise," she said solemnly. "Good afternoon." The door opened as she stepped toward it and then closed silently behind her.

I dropped to the lounge and stared at the spot she had vacated. I don't know whether it could be classed as assimilating knowledge, but I certainly wanted to do a little thinking. I lay back, threw an arm over my eyes, and tried to do it in orderly fashion as seemed to befit this strange new world into which I had been drawn.

My first reaction was one of shame. I flushed visibly at the thought of having treated Lorraine Dillon badly; of having conducted myself as a first class fool. When spoken, my quips had sounded clever in my own ears. Now they seemed utterly boorish.

I probed for reasons. Had I been trying to impress the girl, or had I been trying to act the way I thought a popular novelist should act? I couldn't decide.

My mind drifted to another curious thing: The sudden vanishing of my fear. This amazed me. I conceded, now, that I had obeyed the sum-

mons of the Literary-Robot with all the alacrity of a man approaching his own execution. Yet when I'd stepped through the wall of Room 21, Building 8, the fear had fallen away from me like a shadow from the face of the sun.

Why? Had I unconsciously drawn courage from the imperturbable Miss Dillon? I thought not. Rather, my new-found surety came from another source. One I could sense all around me. It was as though I had entered the aura of some mighty presence; as though the very air about me was charged with unseen power.

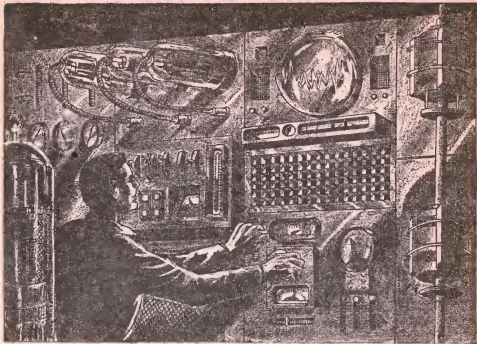
Somehow it was as if I had suddenly awakened from the half-doze of my previous existence and for the first time was truly alive. I suddenly wanted to go and find Lorraine Dillon and tell her about it.

This flash of the callow youth in me soon passed but it gave rise to another thought: She had said I was entirely free—that no obstructions would be placed in my path. What greater opportunity could a man ask? I, Lorn Morrison, had been brought underground. Around me lay the fabulous mystery of the Machine. I could come and go as I pleased. Then what was I waiting for?

**I**N THE WORLD above, man of tomorrow, knowledge of their fate is even now beginning to dawn upon the people. They are beginning to sense the bone-chilling cold of an awful loneliness. A stark terror. They are beginning to realize that the coastal defenses are no more. That savagery from the outer world will soon stalk this land with impunity. They are beginning to sense the Great Betrayal, future man. Read carefully, that some day you also are not betrayed.

\* \* \*

*The heart of the Machine extends*



*ninety-seven-and-one-quarter miles from the surface of the earth downward. Its core has a diameter of one hundred and seventeen miles at the widest point. Fourteen billion, seven hundred and eighteen million, two hundred and fifty-one thousand, nine hundred and eighteen feet of copper wire was used in its construction. It contains over seven hundred million electrical relays; almost as many fuses and converters. One tenth of its area is used in manufacturing parts it replaces within itself. It continually manufactures and dismantles a force of moving robots which see to this work of replacement. These are apart from the huge stationary Robots, each of which operates one particular function of the Machine. These Robots—to name a few—are titled: Transportation, Music, Literary, Nutrition, Planning, Construction, and Maintenance. There are many more. They operate under two sub-heads: Functional and Executive. The heart of the Functional is the*

*huge atomic power plant at the very bottom of the Machine. This power plant is encased in a circular furnace wall. The walls are of lead, nineteen feet in thickness. All tasks not performed by robots are done by forty-three people who ask nothing more than to tend the Machine. Their duties are automatic and run in established channels. There is no need of creative Scientists to further perfect the Machine. It is perfection in itself....*

THE ABOVE is a sketchy resume of the foreword in a book I found shortly after I left my quarters and began wandering through the Machine. The book lay on a shelf beside a chromium fuse box at the intersection of two hallways. How it got there I did not know. It had no by-line and I presumed it was written by the Machine itself. I debated taking the book with me. Then I decided to return for it after I'd grown tired of exploring. It seemed

to contain the answers to many of my questions.

I walked up one hallway and down the next and I had never in my life been encompassed by such self-sufficient solitude. I almost used the word *desolation*, but it would not have expressed my feeling correctly. There were endless rooms off the shining, stainless steel hallways. I wandered into these to find—here a group of pumps working in perfect interlocking rhythm—there perhaps a single huge electric switch throwing off and on as though it had a mind of its own; perhaps a glassed-over wall covered with brass screws in no pattern whatever, but each connected to another by a thin copper wire.

This maze of seemingly aimless mechanical construction continued mile after mile until the fabulous and fantastic grew monotonous and the wonder of it was bludgeoned from my mind by the continued impact of the impossible.

Then I moved, unknowing, to within inches of swift and terrible death.

I had roamed the length of a long, silent corridor and had come upon something different in the way of scenery: a large circular room with a high conical ceiling. I stepped into this room and found myself up against a waist-high, steel railing. My corridor had fed into the room at a level close to the ceiling so that I stood looking down into an immense pit below.

The entire room was functional, its walls made up of bright, seemingly polished machinery of a repetitious and orderly pattern. From beneath some glass covered cones on the pit-floor below was exuded an electric-blue light from the flashing arcs within. This bathed the entire room in an unreal, ghostly radiance.

I was standing with hands on the railing, looking downward, when

some instinct warned me of danger. It was pure instinct, because I had heard no sound. I whirled and dodged, just in time to keep from being shoved over the railing and down to my death below.

A hand, aimed for my back, shot over my shoulder. In the weird blue light, it was a horrible hand, the fingers stiff and clutching. It passed by my cheek so close each individual hair upon the back of it stood out as though under a microscope.

Acting solely for self-preservation, I twisted around and grasped the body of the man behind me and his face was thrust into mine; a gaunt and cadaverous face that was nothing more, at first glance, than green tinged skin drawn taut over the bones beneath it; that and a pair of eyes that stared and yet gave no indication of seeing.

I grasped the man's wrist, tilted backwards until I had leverage and then hurled him away from me, back into the corridor entrance. He hit the steel floor in a prone position and slid several feet along its polished surface until he came to a halt.

I followed him. If there was going to be a struggle, I wanted it to take place in the corridor well away from the yawning pit.

AS I ADVANCED upon him, the man made no move to get up and repeat his attack. He sat leaning against his hands, his back stiff, those empty eyes staring up at me.

I could only hesitate, wondering if the man was overcome with consternation at having failed to jam me over the railing. I stood well clear of him in case his bewilderment was but a ruse and his intention was to hurl himself at my legs.

But he made no such move. He said, "You're Lorn Morrison, aren't you?"

I replied, with some belligerence, that I was.

He lifted a hand and passed it over his face as though trying to wipe cobwebs from his brain. As he did so, he whispered, "I'm sorry—damned sorry. I—I don't understand it. It's beyond all comprehension. It seems I went suddenly mad."

"Who are you?"

"My name is Blane Doyle. I am a Minor Scientist. I don't understand this at all."

"Well, if you don't understand it, you certainly can't expect me to. You tried to kill me, man!"

He was getting slowly to his feet, the dazed expression not having cleared one whit. "I know. I saw you standing there—and then the whole Machine seemed to shudder under my feet." His words were not really directed toward me. He was looking into my face and yet was talking to himself as though he needed the comfort of his own voice to sustain him.

"No," he went on, "not like that exactly. No physical upheaval. It was mental, intangible—as though the air about me was heaved in all directions by a monstrous retching. You've heard of men reacting strangely to high altitudes? Sometimes violently? That's how it was. I saw you standing there and then this—this condition came about. I hurled myself at you, somehow through fear. That was it. I was suddenly filled with terror."

He slumped against the wall and again rubbed a hand across his forehead. "Can you forgive me? Trust me? Forget this terrible thing I just did?"

I studied him closely. His contrition certainly appeared genuine. Either he was sincere or he belonged in the upper world among the Actors. I didn't want to be a gullible fool, but neither could I stand there all

day. I stepped forward warily and held out my hand. After all, he stacked up as a rather elderly and fragile man and I decided I could handle him if this were a ruse of some sort.

"It's all right, Doyle," I said "Quite all right."

"We use first names down here," he said, absently, his mind still on his own problems. "I'll call you Lorn."

"Certainly—Blane. I'm sure you're quite recovered now. Maybe you should return to your quarters and rest. These things just—happen, I guess."

His eyes now centered upon me and seemed to record an image for the first time. "That's not true. Don't you see? Can't you understand? Things like this *don't* happen. In all the history of the Machine, nothing like this ever happened before. *It never happened before.*"

The man obviously needed some sort of comforting. It was certainly no time to get into an argument. "Fine, and let's proceed on the belief that it will never happen again. Come. Let's move on up the corridor. This blue light hurts my eyes."

**I** DROPPED my wariness now, as there appeared to be no need of it. He walked along beside me, his shoulders bent, his feet shuffling, until I slapped him on the back.

"Come—come! It's not as bad as all that. It's over and done with. You can be sure I'll never mention it to anyone."

"That's good of you, but it makes no difference. The incident is already recorded in the Brain Files."

This gave me a lead, a way to draw him off his troubles. "The Brain Files. They are of great interest to me. I wonder if you'd tell me about them?"

Whether or not Doyle had the mind reading talents of Lorraine Dillon was not apparent. He rose to the bait and asked, "What do you wish to know?"

"I understand they contain the brain pattern of every human being in Mid-America."

"Not every one. A child is not required to sit for a brain pattern until he has reached the age of twelve. Then at twenty-three there is another sitting and the first pattern is discarded."

I knew all that of course, having complied with the ruling myself. "In what form are the records kept?"

"On silver wire. They are superimposed again and again. Any brain pattern can be drawn out by the vibration of its code number in a matter of seconds. The entire file is nothing more than a role of silver wire some twenty thousand feet long."

Doyle was still showing signs of weakness. He stepped to the corridor wall and a panel slid open. "If you don't mind," he said, "we'll take a chair-car back to the central building. I don't feel quite up to a long walk."

A double-seat car slid out of a small garage, turned itself in the direction we'd been walking, and came to a stop. We got into it and the car started off.

"Does—does it know where we want to go?"

"Of course. I just told it we wanted to go to the central building."

"So you did. Just how is it equipped to respond?"

"I haven't the least idea," Doyle replied. "My work does not impinge on that phase of the Machine in any way."

There was a moment or two of silence, during which Doyle seemed to become aware of my surprise. "You see," he hastened to explain, "each

of the persons privileged to serve the Machine considers himself—so to speak—a part of it." He stopped and appeared to be thinking. "Yes, that's it. Although I never analyzed it before, that's the situation. Each part of the Machine has a function to perform. For instance, one particular transformer among an infinite number does a specific job. To oversimplify, it neither knows nor cares what the other transformers do. It knows only that they will perform their various duties just as it will perform its own specific duty."

"And it's the same way with the people?"

"Exactly."

"What is your duty?"

"I patrol a route of Basic Generators."

"You merely patrol the route?"

"I check the wave-length of each brush to discover if it is worn down."

"And if it is?"

"I inform the Machine."

I was so deeply interested in the workings here underground that I completely ignored tact. "Isn't that something that could be done by a robot?"

Doyle, however, did not appear in the least offended. "I don't know. I would say that the fact that I am doing it precludes the possibility of a robot being able to perform the work."

"I see." But I did not agree with Doyle. Common sense indicated the work to be of the simplest nature. A robot could have certainly done it. Then why Doyle?

**FOR WANT** of a better explanation, I decided that the Machine chose to keep a certain human quota within itself. This quota, from what I had seen, could be either simple-minded or intelligent. Witness the sharp mind of Lorraine Dillon, and that of a so-called Minor Scientist,



Doyle, who did not even know what made a chair-car function.

Another facet of the riddle occurred to me. I stated that Lorraine Dillon was certainly higher in intelligence than Doyle. But only, so far as I had discovered, relative to her own personal work which had to do with the Brain Files. It was entirely possible that she was as ignorant of other underground workings as Doyle seemed to be.

And now a fresh incident intruded itself to take my mind away from abstract reasoning. It seemed to me a minor incident.

The chair-car came to a halt. That was all.

But it wasn't a small thing so far as Doyle was concerned. For a moment he sat staring blankly ahead. Then his eyes widened and his jaw dropped from sheer consternation.

"It stopped!" he said.

"So it did. Have we arrived at the central building?"

"No. We haven't traveled even half the distance."

"Then what do we do? Get out and walk?"

He turned his head slowly until his eyes were fixed upon mine. "But you don't understand!"

This annoyed me. Did Doyle think I hadn't enough mental grip to conceive of an ordinary car coming to an ordinary halt?

"What is there to understand?"

"The car stopped. Such a thing has never before happened!"

"You mean these things move endlessly?"

There was a look of fear and pleading on his face. "Please do not indulge in humor."

"I wasn't aware that I was so indulging."

"Please try to grasp it! I told the car to take us to the central building. It did not do so. It did not obey

me."

"But it's obeying you now." I spoke just after the car went again into motion. We were moving smoothly down the corridor as before.

"But—but it shouldn't have stopped!"

All this was fast becoming a distinct frustration to me. I didn't try to hide my frown. "Mr. Doyle—I mean Blane—allow me to present my thoughts in the simplest terms. What just happened seems to me most trivial. A chair-car came to a momentary halt while traveling down a corridor. It frightened you. Therefore it must be of importance. Now tell me—just what world-shaking event does the stoppage foretell?"

"I don't know."

"Then why worry? It is certainly a minor error."

"You don't seem to grasp it as I do. A minor thing, certainly, but a mistake nonetheless—and it never happened before. In the Machine, Lorn, *there is no margin for error.*"

I was beginning to tire of the subject. "An error *did* occur and without disastrous results. Therefore we must assume there *is* a margin for error."

Doyle thought that over. "But the other—my actions back at the Valve Crypt?"

"Also explainable," I said. "After all, you are human—not a steel mechanism. Such things happen to humans."

"Are you sure? Tell me, when and where did such an attack seize a human being in the last two hundred years?"

I would have responded sharply, but at that moment the car came to another halt. Evidently nothing was amiss however, because Doyle quit the car and I followed him. Immediately the vehicle moved on down the corridor to stop suddenly and turn to a position at right angles with

the wall. A panel slid back and the car disappeared beyond it.

"I'm very tired," Doyle said, with a weak smile. "I wish you would excuse me. I believe I need a rest."

"I think it's a good idea."

**W**ITHOUT another word, the harrassed man walked away and out of sight into a cross-corridor. I stood looking after him. If he is a Minor Scientist, I thought, what sort of mentality will I find among the Workers?

I moved up the corridor seeking the location of my quarters. This I did by watching for the number—22—I'd seen previously over the door. I found it, went inside, and began pacing the room.

In truth, I was not nearly as undisturbed over the car-stoppage incident as I'd appeared to be. In itself, it had bothered me not at all, but its effect on Doyle kept preying on my mind. The man had been frightened—almost terrorized. What lay behind the terror? Had his simple explanation been the true one?

I thought that probably it had, so far as he'd been able to explain it. Now I remembered, and pondered upon my own fear when the Literary Robot had neglected to deliver my books; when, instead, the cryptic note had spewed forth from the rejection slot.

I remembered the haste with which I had sought an alcoholic buffer and the unpleasant night I'd spent at the Florida Gardens. Could I have explained my fear to anyone making inquiry? No. Then why had I been so critical of Doyle? I decided I owed the man an apology. Even though he had tried to kill me—

I whirled at the instinctive feeling of a presence in the room and discovered Lorraine Dillon standing inside the doorway. It was my desire

to resent her silent entrance and to make my resentment known to her. But this I could not do. I was distinctly glad to see her.

She started to speak, then bit back the words, her white teeth against her lower lip. "He tried to push you into a Valve Crypt?"

She spoke exactly as though I'd just finished telling her about it, and the effect of her words can only be described as weird. I remembered instantly her mind-scanning talent and realized I could as well have spoken of the incident as to have had it on the tip of my brain, so to speak, when she entered.

"Your mind reading ability is devilishly disconcerting at times," I said.

"I'm sorry. It was rude of me. But—it really happened?"

"It happened, but no harm was done. I'm pretty agile when the necessity arises. Blane had some sort of mental spasm. He recovered almost immediately."

"But why did he have—a mental spasm, as you call it?"

I stared at the girl levelly. "Let me say it this time. I'm beginning to get the hang of it: *In the entire history of the Machine, nothing like that has ever happened before.*"

"That's quite correct. But it doesn't seem to disturb you much."

"It doesn't. Should it?"

**T**HE EYES that were beginning to haunt me gave back my stare, but Lorraine had no words. I said, "Possibly it's because I don't know anything about the Machine. My situation is probably that of a fool in paradise—a baby sitting on the edge of a cliff."

Still she did not speak and I babbled on. "I know nothing about the Machine, but from what I've gathered so far—neither does anyone else down here. Why don't you say some-

thing?"

"There was another incident."

I wondered if she'd dragged the chair-car episode out of my mind. This was not the case, however. "One of the Minor Scientists, William Kensing, was struck."

"More violence."

"He was struck by a cigarette vendor. He was seated in his quarters and had reached for a cigarette. But instead of handing it to him, the vending arm came out and struck him savagely in the eye."

I made an honest effort to hold back, but the laughter insisted upon expression. I threw back my head and indulged in unrestrained guffaws until I again caught Lorraine's solemn expression as she stood regarding me.

"Perhaps," I said, "it's the Machine's way of telling William he should give up smoking."

My discomfort became suddenly acute. I felt a little like a man who had told an off-color joke at a prayer meeting.

"I'm sorry," I said. "Truly sorry. I will present myself for punishment."

I sat down on the lounge and reached out to break the electronic beam of the vendor. Instantly the slot opened. I saw Lorraine lean forward in alarm and heard her quick exclamation. "Be careful, Lorn! Be careful!"

But the Refreshment Robot was evidently out of its eye-punching mood. The arm handed me my cigarette and disappeared. "Would you care for one?" I asked.

She shook her head. "I wonder why you were sent for. I wonder why you're here."

"Possibly to cheer the place up a little. I play a fair piano when urged."

Her teeth bit deep into her lip. a characteristic gesture I'd grown to expect and to watch for. "I don't understand you at all," she said. Then

she turned and left my quarters.

It was with distinct regret that I watched her go. After a few moments I followed her into the corridor but she was nowhere in sight. I was just turning back, when I remembered the book I wanted to read. The place wasn't far away and I hurried down the hall, thinking that I'd have liked to have seen the expression on William Kensing's face when the vending arm popped him in the eye.

I found the place I'd left the book. I examined the surroundings and was sure I hadn't gone astray. But the book was missing. It had vanished from the shelf on which I'd placed it. Slowly I retraced my steps, somewhat annoyed. I'd had every intention of spending the hours before bed time in a close study of the Executive branch of the Machine. Evidently someone else had seen the book in passing and had picked it up. I returned to my quarters and ordered a substantial dinner.

\* \* \*

**B**EAR WITH me, man of the future. Sad it is that I, Lorn Morrison, am not a Dickens, a Tolstoy, a Balzac. The Golden Age was not conducive to the flowering of genius. The Golden Age was designed for Man's comfort, amusement; his entertainment. Genius is not formed under such velvet conditions.

I am doing my best in the writing of this narrative. I am shudderingly conscious of its importance. Yet, as I reread what I have written, the words seem light, trivial. A thread of humor and frivolity seems woven into the story; a thread that mocks me; that says: You Morrison, are a mediocrity—a true product of the Golden Age—and thus not capable of telling this grim and horrible tragedy.

That is true. I am but a school child trying to do the work of a Dos-

toevsky. But I can only do my best. So bear with me, man of the future, and do not charge off what I have written as a light and frivolous bit of fiction.

\* \* \*

**THE MACHINE** had two basic beginnings: The beginning of the mechanism itself—and the beginning of a need for it, if the term "need" can rightly be used.

The mechanism began taking form on that unrecorded day, thousands of years ago, when the First Genius—wearing an animal skin and carrying a club—discovered the wheel.

The beginning of the need was a little more gradual. It covered a longer period. The need was formed as men of olden times began regarding luxuries as necessities; when cosmetics became as important to women as the proper nourishment of their children; when a man's tobacco became as much of a necessity as a pair of shoes; when a video plate became a thing more to be desired than a comfortable bed upon which to sleep.

When luxuries became necessities, the need for the Machine was born.

**I AWOKE** the following morning into a sense of great expectancy. This, I was sure, would be the day. Possibly before bedtime the Machine would speak to me! I had no idea, of course, in what form this "speaking" would become manifest. It could be in any of several ways. Perhaps orally through an electronic-manifest; perhaps I would be contacted mentally. Or, possibly—as it had been with the Literary Robot from which I'd gotten my summons—the words would be sent in the form of a written message.

I was pondering all this, while I showered and shaved. Then, a short time later, there came another of those

annoying lapses that would no doubt have struck fear into Blane Doyle. I had ordered breakfast from the Nutrition Robot, clad the while in a dressing gown provided the night before by the Service Robot, which had also delivered the toiletries I needed. I had also sent out my entire wardrobe—the clothing I wore—for cleaning and laundering.

After breakfast, I signalled for its return. It was delivered, in perfect condition, through the valet slot, and I proceeded to dress for the day. Almost finished, I stopped and gaped into the mirror.

The necktie was not mine.

I scowled at the strip of blue cloth I'd just formed into a knot around my neck. The tie I'd sent to the Service Robot had been dark red of background with a small black design woven into the fabric. The one returned to me was a solid sky blue—more attractive no doubt than the other one, but still not my necktie.

Instantly the logical thought-sequence flashed into my mind. I caught it up almost savagely, refusing—after having been almost contemptuous of Blane Doyle—to react exactly as he had reacted the day before. Doggedly, I reformed the thought-sequence:

When, I asked myself, will one of these trivial errors be repeated so it cannot be said—*this is the first time in the history of the Machine that such a thing ever happened?* I refused to give sanctuary to the vague fear rising again within me, and forced my thinking into sardonic channels. Take the stoppage of the chair-car on the previous day. Would a second, third, or fourth stoppage establish a new norm which Doyle's mind could accept and recognize? I wondered about this and then thought of the solemn, beautiful face of Lorraine Dillon—heard her saying as though referring to a violation of the natural law—

"the vending arm came out and struck him savagely in the eye."

I jerked the necktie into place and turned abruptly from the mirror. My scowl remained. This whole affair was becoming most exasperating. What was I doing in this place, anyhow? Why had I been summoned here? Was it another of these unexplainable little errors on the part of the Machine? Was it the outward result of an electronic impulse misinterpreted by the underground mechanism? Maybe someone in Mid-America had ordered honeyed figs for breakfast on the previous morning and, because of an error, the Literary Robot had acted in a fantastic manner and had ordered a single individual—out of two hundred million—to report underground.

Maybe the Machine had no more idea of what I was doing below-surface than I had!

"I'm getting a little tired of this!" I said sharply.

I don't know whether the resulting action-sequence was a result of this exclamation or not. At any rate, it developed instantly. I turned and walked out of my quarters into the corridor. I bore left and pressed a signal on the wall, whereupon a chair-car came from its garage. I got in and the car rolled off down the corridor.

**A**FTER TEN minutes of travel, the car stopped. I got out and without hesitation, approached a place in the wall where a door opened, allowing me entrance into a room where a group of people were gathered.

I did not count heads, but I think their number was close to ten. Some were standing about in various attitudes of helplessness. A small group of them was kneeling around the prone figure of another. Without exception, they all turned eyes upon

me.

"What is the trouble here?" I asked.

No doubt I inadvertently sounded authoritative when I was merely curious—both as to what had occurred and why I had come unerringly to this place.

One man, taller than the others, got to his feet and stepped back from the still figure on the floor. "Gregory is dead," the man whispered, "and still he lies unattended on the floor."

Now the rest of the kneeling group got up and moved away from the body as though it were charged with some lethal ray. Broken snatches of information came to me from different parts of the room:

"The blood comes from a gash in his neck."

"There is also blood on the edge of the bookshelf."

"He must have signalled for a book."

"The service door opened and the shelf came out and knocked him to the floor."

"It hit him with enough force to gash his throat."

*Never in the history of the Machine had a bookshelf cut the throat of a human being.*

Here it was again. Sinister in its monotony.

I lifted my eyes from the body and glanced around the room. Suddenly, I felt ill at ease standing there among people I had never seen before, yet who acted exactly as though I were a lifelong acquaintance.

"My name is Lorn Morrison," I said.

The tall man held out his hand. "We were all notified of your arrival."

We shook hands. "Were any of you enlightened as to the reason for my coming?" I asked.

Their expressions were as blank as

the empty sky. All except the tall one, who said, "My name is Bark Fleming. You can—"

"I know. I can call you Bark. We all use first names down here. Is this man dead?"

"He is dead."

"How long has he been lying here?"

No one answered. No one seemed to know.

"Where are the Casualty-Robots?"

No one answered.

"What's the matter with you people? Are you all operated by invisible wires? Aren't you human?"

No resentment flared in any of the faces. Only one of them replied. "There has never before been an accidental death. Perhaps the robots are not equipped to respond."

Another sharp exclamation welled up in my throat. But it never found expression because something of far greater importance smote me almost forcibly and there came the clear, sharp thought:

*It is not they who are strange. It is you. You, Lorn Morrison, have changed. Only a few hours ago, you were no different than they. You were frightened because the green light flashed and no copies of your book were forthcoming. You have no cause to criticize these people.*

**T**HE THOUGHT-SEQUENCE was broken by the opening of the door and two Casualty-Robots wheeled noiselessly into the room. Their soft rubber-covered arms gently lifted the dead body of Gregory up from the floor. The assembled humans crowded back as the robots left the room; left it full of a silence you could have cut with a knife.

I broke the silence. "Does any one of you know where the robots take a body? Has any of you the least idea what becomes of it?"

No one had anything to say.

"Talk up, damn you!"

I could have been speaking to fence-posts. Only Bark Fleming replied. "We are all quite naturally at an utter loss—"

But even louder, through my brain, screamed the self-accusation: *Do you, Lorn Morrison, know what becomes of a dead body in this beautiful Utopian age of total freedom for every man? Have you ever cared—really cared—where your food comes from? How your pants get pressed? How your books get put together and distributed? From whence come the robots that pick you up if you fall in the gutter and put you into a hospital—that more fully understand the Hippocratic oath than any doctor who ever lived in the years long gone? Who are you to shout at your fellow drones?*

I suddenly had to get out of this room—away from these strange, ghost-like people who seemed more dead than alive in their helplessness.

The door opened for me and I went blindly through it into the corridor. Far too blindly. I hurled full-tilt into Lorraine Dillon who was just entering. Instinctively, we threw our arms about each other and stood like two grotesque dancers struggling for balance. We achieved it and disengaged ourselves.

"I'm sorry. Very clumsy of me. The first time such a thing has happened, no doubt."

I saw her eyes: large, solemn, accusing. "Your humor still prevails—except now it's turning bitter."

Taking her by the arm, I started hauling her down the corridor. "Come with me."

She pulled herself from my grasp. "Don't hold my arm. I'm quite capable of walking."

"Then walk."

We moved along in silence, a strange tight silence neither of us



found words to break until we were back in my quarters. Then Lorraine sat down on the lounge, reached for a cigarette, and asked, "Why did you bring me here?"

I paced the floor, back and forth, not breaking stride as I answered her. "I don't know. I thought I wanted to be alone, but I guess that's not true. I must want someone to talk to."

"About what?"

"About this devilish place and what's happening to me down here."

"Devilish? If you don't like it you're free to leave."

"I don't want to leave. I want to talk. Listen: Haven't you any idea whatever about who the Machine really is?"

"Your question is childish. What do you mean—*who* the Machine is? It isn't human. It's a vast impersonal mechanism; a completely self-sufficient product of the finest brains the world ever knew. Professor Gideon Lee—"

"Stop it! I know all that. Every school child in Mid-America can recite it with perfect inflection. But it's a lot of rot! The machine is *not* impersonal. It may be completely made up of steel and atoms and electricity but it's no more impersonal than God!"

"I'm afraid I don't follow your line of reasoning."

I SAT DOWN on the lounge next to her and took her hands in mine. I tried to relax and managed a smile. "Maybe I don't understand it myself, Lorraine. I guess I don't even understand Lorn Morrison any more. All I know for sure is that something's happening to me—*has* happened."

"Tell me about it, Lorn."

"I'm as different from the man who came in here yesterday as night is from day. When I answered the summons from the Literary Robot, I was

just like the rest of you—the ones up above and the ones down below. Unexplainable occurrences frightened me just as they frighten you and Blane and the crowd standing around Gregory's body back in that room."

"You mean they no longer upset you at all?"

"Not in the least—except to make me mad at seeing a man cringe when a chair-car stops—at seeing the look of helplessness on their faces at sight of a dead body."

"But there has never before been an accidental death in—"

"Don't say it or I'll turn you over my knee and paddle your pretty little pink backside! I'm fed up with hearing that line of talk. I can't take any more of it."

Lorraine glanced at the door as though she expected the Casualty Robots to come in after me at any moment. "I think you need a sedative," Lorraine murmured.

I took her hands in mine. They were soft and warm. "We're as far apart as the poles, aren't we?"

Her eyes were probing—analyzing. "I can't make head or tail of you. Your mind is a whirling chaos. Has the Machine spoken to you yet?"

"I think it did. I don't know how it was accomplished, but something sent me directly to the room where Gregory was killed."

"I sent you there."

"But you arrived later than I did."

"I caught the message while I was at work. I came as soon as I could."

"Then it wasn't the Machine. That's disappointing in a way. You see I've been forming a sort of theory."

"About what?"

"About why I was brought here. First I thought it might be another mistake, but I changed my mind. I don't know why I'm here, but it certainly isn't chance that I feel as

though I've just been born. My mind is clearer, Lorraine, sharper and more alert than it's ever been. It's as though I'd been walking around all my life under the influence of a drug and the drug has now worn off. I've begun to ask questions—demand answers—”

“You think possibly you're being conditioned for some task—some duty?”

“That's it! You've expressed it better than I could. How else can we account for the petty fears leaving me completely? My interest in what makes the Machine work when I never cared in the least before?”

She pondered this as though it were the world's most important problem. I went on. “The point is this, Lorraine. In a sense, I am now a man with sight, walking among the blind. I *know* I am clearer-minded and more alert than they—or you. And since it has happened to me, why can't it happen to everyone else? Maybe this is the beginning of a great awakening, Lorraine, and God knows Mid-America needs an awakening.”

Lorraine summed up the opposition perfectly in four words:

“I don't see why.”

**I** FELT A sudden deep frustration and emptiness. I felt as lonely as Socrates would have felt on an island inhabited by cavemen.

And it was not conceit or ego that prompted this feeling. I was utterly sure of myself—certain of my newborn mental expansion. It was as tangible as my breathing.

But there was no use discussing it with Lorraine—nor anyone else I knew in this land of two million humans. I had become a freak and I wanted to know why.

“You'd better run along, Lorraine. I'm only boring you.”

“Oh no, I enjoy listening to you.”

“But you don't know what I'm talking about.”

“I do in a sense, Lorn, because it hinges on brain-patterns. You refer to a complete reorientation of the electronic waves emanating from the brain tissue due to the reassembling of the nuclear rhythms resulting from shock of some sort.”

“I do?”

“It could be nothing else. But you are wrong about its possibly becoming an epidemic.”

“Why am I wrong?”

“It is a recognized fact that such a thing can happen in certain cases; but the cases are very rare; maybe one in half a million.”

“That wouldn't be much of an epidemic, would it?”

“No. The clue is in the brain-pattern. You could hunt for weeks without finding one.”

I was still holding her hands, but she didn't seem aware of the fact. “How,” I asked, “can you know so much and so damn little at the same time?”

Lorraine withdrew her hands and got up from the lounge. She wore an expression of doubt and unhappiness. “I—I can't read you any more. It makes me nervous.”

“You don't know what I'm thinking?”

“No.”

I leered at her. “It has to do with reproduction, darling. Better run along quick, or I'll eat you for dinner.”

For the first time since I'd known her, Lorraine flared. And in so doing, she was as pretty as a Roman candle against a dark sky. Her eyes widened and her nostrils flared.

“You hold us in contempt, don't you Lorn? You feel far superior to us and think you know so much more than we do! You sneer at us in our abysmal ignorance concerning the

Machine! All right, Mr. Super-Intelligence—Mr. Cynic! Go out and learn about it for yourself! Go out and run up and down the corridors until your feet drop off! Stick your nose into every pump and battery box and generator from here down to the atomic pack and then come back and tell me all about the Machine! Tell me all its secrets and what makes it work! I'd like to know, Mr. Morrison! I'd like to know!"

Lord, but she was beautiful, standing there hating me! I drank in that beauty and heard myself saying, as usual, the wrong thing: "We use first names down here, Lorraine darling."

"That's right—we do! But 'darling' isn't a part of my first name! Please remember that. Good bye—Mr. Morrison."

She went away, leaving an empty place all around me. I threw myself down on the lounge and closed my eyes. When I opened them again, the metal fingers of the serving arm were patiently holding forth a cigarette.

That was strange. I hadn't signalled for it.

\* \* \*

THERE WAS an ancient book, man of the future; a book called the Bible. God grant, in your wanderings, you come upon a copy of it, as I have no copy to leave for you. And sad it is that I cannot leave you a Bible because this narrative you read might well be called an epic of despair, while the Bible is the most magnificent book of hope ever penned.

In the book called the Bible, there are laws laid down by God Himself and given, through Moses, to the people. And God is great, man of the future. Greater than the Machine.

One of these laws from the Almighty was: "Thou shalt not have

strange gods before me." That meant that the worshiping of idols was a dangerous and terrible thing to do.

And that, I think, was the basis of this whole panorama of tragedy. Because the Machine was an idol; the people's complete trust therein was a hideous form of worship.

The Bible did not state, tomorrow's man, the punishment meted out for worshiping idols. So, in a manner, this narrative supplements the Bible in that it tells of the punishment. Read well and take the lesson into your heart.

\* \* \*

*Centuries ago—while the Machine was a dream of giant minds—the affairs of the nation were conducted differently. Governments were formed among men that they could live in peace among themselves and derive the greatest good from the community life. Various forms of government went into discard until two ideologies dominated the world—Democracy and Communism. Communism was essentially a short-lived form because it drew its life-blood primarily from human want. It promised alleviation of want, but kept the promise only by spreading available supplies over an ever expanding surface and then enforced universally shorter rations with an iron mace. Democracy, upon the other hand, recognized the truth that improvement in conditions comes only from the initiative of the individual. It highlighted human freedom and in that freedom men felt the inner drive of the creative spirit. Democracy thrived and flowered. It built the Machine. The Machine is a tragic failure. Does it follow then that Democracy was wrong? No, because Democracy thrived on its own life-force—continuous dynamic achievement of the individual. The Machine*



Hammering sound and a flashing clash of half-formed images tore painfully at his reeling mind

*only proved there are other ways to turn men into hollow shells—other ways than smashing them with an iron fist.*

ON THE following day, Bark Fleming was killed. I witnessed his death.

I had gone to bed finally, after pacing the floor for hours mulling over Lorraine Dillon's accusations. I had certainly not been contemptuous of the others, but outward appearances must have indicated my so being. Possibly it was a result of her own bewilderment—that accusation; maybe a blind behind which she hid her own helplessness.

But thinking that, could also have been a screen behind which I was hiding my own inability to excel in social intercourse. After a long period of this mulling, I jerked myself up sharply. Why was I worrying about it? It was of no importance. None whatever. I had no interest in this girl. And basically, no interest in the other forty-two humans inhabiting this underground. Yet I was not going to evade Lorraine Dillon's challenge. I'd prowl the corridors just as she'd invited me to. And I'd find out about the Machine; more than the whole forty-three of them had learned in all the years of their service.

This last was more prophetic than I knew.

I went to bed not realizing how juvenile my thought-sequences had been. I awoke the next morning with all of it gone except the urge to investigate. I left my room as soon as possible and began wandering.

For an hour, I walked in what was probably a great circle, turning up every bisecting corridor I found. Everywhere it was the same—endless, shining emptiness; long stretches of complete silence broken, here by the hum of power surging through channels hidden behind walls of steel;

there by the quiet rhythm of machinery as countless functions were fulfilled behind closed doors and bolted cover-plates.

Three times I passed robots moving on silent wheels along the corridors. I reversed my direction and followed the first one I met—a chromium platform with a lifting crane and four metal arms—evidently a Carrying-Robot. I managed to keep pace with the mechanism, but it turned suddenly within the corridor and went through a door that had opened to receive it. The door closed and when I tried to reopen it, my efforts were unsuccessful. I allowed the other two robots to pass me and go where they would.

I now realized that the tunnels I followed were not level, but were slanted slightly downward; not much, but enough to carry a man far underground in a matter of a few hours.

From whence this knowledge came, I knew not. It wasn't learned by any conscious process. It was just suddenly there in my mind, full-blown and complete: *The corridors angle gently downward and you are moving toward the Atomic Pack.* Thus my mind spoke.

So insidiously did this knowledge infiltrate my mind that I was not aware of any singularity in it for several minutes. Then I stopped suddenly, frozen by realization. The information had been given me by some source outside my brain. What source?

A QUICK wave of weakness passed over me and I was forced to lean for support against the wall of the corridor. Perspiration welled from my pores. Then there came upon me a sudden wave of nausea such as I'd never known before. I was not conscious of falling, but fall I did, because my consciousness left me and time ceased to be.

I was trapped in a sort of whirling vacuum that held me disembodied and powerless; a horrible sensation enveloped me; a sensation with all the starkness of realism, yet it was within me to know it as a dream.

All around me floated seemingly astral entities and I knew them, in the dream, for thoughts given visible form, if that is understandable. The Machine was cut up into separate parts it seemed, and I was floating among them. There was the Power Source; the thirty-six Major Robots floating around and around in the vacuum. There was one gigantic entity which I knew as The People. This was the largest entity of all. It remained motionless and the others circled it.

Now the scene changed. The entities disappeared and the void was filled with nothing but lips—mouths floating unsupported in the space about me. Mouths speaking:

"You have been selected."

"Lorn Morrison—Lorn Morrison—Lorn Morrison."

"You are the honored one."

*Laughter—laughter long and loud—hot and searing.*

"The honored one," as from a chorus in a great cathedral.

"Your Brain-Pattern was right."

"One in five hundred thousand. Ha! One in ten million!"

I floated and dreamed and suffered.

"Let me speak!"

"Let him speak—speak—eak."

"I have nothing to say."

Mad laughter. "He has nothing to say."

"The Executive Force of the Machine. In a great silver vat covered over."

"The Heart of the Machine."

"The Soul of the Machine."

"The Pulse of the Machine."

"The great silver vat!"

"They misjudged!"

"The great mistake—the great mistake—the great—"

"Stop it."

"Forgive, forgive! We only came to tea!"

I realized the order to cease had been my own; that I'd shrieked out the words in my dreaming, unconscious state, and come back to wakefulness in time to hear the last echoes of it ringing down the corridor in which I lay sprawled.

Sick. I had never known such sickness, but it was not physical. Rather a sickness of the mind, clawing and ripping at the very bastions of my sanity. In a brief moment that seemed an age, my reason tottered, fought for its existence, came again to balance and—

Held.

Now all was as before. The silent, gleaming corridor stretching away; the deep-seated throbbing of a pump hidden somewhere within this steel colossus. Everything around me was as before.

But I myself had changed.

IT WAS a little as though a child of six had been allowed to develop completely into a man of fifty within a few seconds; then to turn about and see the entire process with intense clarity. I now knew many things I had not known before. I knew—without the labors of learning it—the over-all pattern of the Machine. I understood perfectly, the integration of all the minute parts into the larger parts—the large into the greater—the greater into the more vast—until the whole, breathtaking grandeur of its simplicity was in my mind.

I knew everything—yet nothing. I remembered an ancient quatrain, the source of which was lost in antiquity:



*Up from Earth's center, through  
the Seventh Gate,  
I rose and on the throne of Sat-  
urn sat.  
And many a Knot unraveled by  
the road;  
But not the Master-knot of Hu-  
man fate.*

Standing there in the corridor, with all this suddenly endowed knowledge, I still asked the question: What makes the Machine work?

I did not know.

And now it came sharply upon me that I was being moved about like a pawn—motivated, pushed forward and back, by a power I did not understand. The certainty of this came as a result of sudden action on my part.

I pushed a signal in the wall and was almost as much of a robot as the chair-car that responded. I climbed in and gave the speech-vibrations necessary to send the car on its way:

"Corridor 719—Fuse Cluster 17-A-6. Fast!"

The car whirled through the corridor at a speed that sent the wind singing past my ears. I gripped the safety bar and asked myself: Where am I going? What is the reason for this?

The bright steel of the corridor became a silvery blur as we rocketed along. We turned corners with neck-snapping suddenness. Then we were there. The car braked to a halt.

In a corner nearby, Bark Fleming crouched down against the floor, terror in his eyes and blood streaming from cuts and bruises on his face. A Casualty-Robot stood over him, leaning forward. Two of its arms were outspread to hold him in the trap.

The other two were systematically tearing him to pieces.

It is a chilling and terrible thing to see violence without passion—cruelty without emotion—suffering without reason. A short time before, I would have been shocked into paralysis by the sight.

I was shocked now, but still master of myself. I sprang forward and turned a small handle on the back of the robot. It sensed my presence immediately and turned to destroy me. But I anticipated its fury, ducked under the murderous rubber arm, and jerked open the small door to which the handle was riveted.

I thrust my fingers inside and grasped the silver wires of the safety fuse just as the robot hurled me away. I sailed through the air and came to a sliding halt against the far wall of the corridor. The Casualty-Robot stared at me through sightless bulb-filaments from which the fire was gone, the glow extinguished. The robot was now a motionless piece of dead machinery.

I got to my feet and hurried over to kneel beside Bark Fleming. It was too late. Bark was dead, one of the robot's arms having thrust straight into his chest, breaking bone and tearing flesh, clawing his heart to ribbons.

Nothing could be done for Bark. I straightened and passed a hand across my eyes just as the weirdest part of the performance went into enactment.

FROM SOMEWHERE down the corridor, another Casualty-Robot came into sight. It moved noiselessly forward and, as I stepped aside, it picked up the remains of Bark Fleming and returned in the direction it had come.

I knew what would happen to Bark. His body would be delivered to the observation ward of the hospital. Shining instruments would check, probe, and test him for signs

of life. None would register on the dial under the electronic beams of the governing unit, and a signal would go out automatically for Bark's delivery to the atomic blast ovens where his remains would be turned into a fragment of charcoal.

This fragment would go into a jar bearing Bark's statistics; then into a crypt—a temporary resting place—where it would stand until all chance of Bark's relatives demanding the ashes had passed. If the ashes remained unclaimed, a time recording device would finally signal for the urn's disposal. It would be flung into an atomic furnace—to complete destruction.

All this went through my mind; and again the wonder at my newly acquired knowledge. It seemed that my brain had become a file-cabinet of inexhaustible information into which I could delve for details relative to any situation.

Glancing down at the fragments of silver wire in my fingers, I noted they were entirely too thick for their purpose. The wires of a safety valve were supposed to be extremely fragile, thus burning out at the first overload of electronic impulse. These wires could carry a load strong enough to activate ten robots.

An error. A grave error in the construction of the mechanism that now stood before me as a harmless pile of inanimate material.

Came frustration—sharp annoyance as I probed my newly acquired brain-file for an answer and found none. It seemed I had been given a great deal of information, but not all the information I wanted. I knew what the error had been, but I had not the remotest idea of how or why it had been allowed to happen. Automatically my thought-sequence slipped back into the old rut:

*Never before in the history of the*

*Machine has a man been beaten to death by a robot.*

A chair-car whirled into view, stopped, and Lorraine Dillon got out. Her face was white, showing strain and tension.

"Was he—killed?"

"Yes. A robot went berserk with its safety fuse improperly built. The silver wire was too thick to melt."

She looked at me strangely.

"The Casualty-Robot took him away?"

"Yes. You look tired. We'd better go back to the central building."

LORRAINE did not object. We got into the car and I gave directions. The car began to move. Lorraine said, "You become more mysterious every time I see you."

"I'm sorry."

"You are a Novelist. You've never before been underground. Yet you know about the workings of a Casualty-Robot. I don't think there is a Minor Scientist or a Worker who knows that."

"Never mind. The important thing is that I owe you—and the rest—an apology."

"Why?"

"For ridiculing your fears. You were right—all of you. There is something vitally amiss down here."

"The mistakes have finally brought you around to that belief?"

"Not exactly. Let's say I was too stupid to be impressed by small errors. It was something else—something that happened a few minutes ago."

"Bark's death?"

"No... By the way, you didn't send for me this time, did you?"

"Not this time."

"I thought not. The Machine did it. Of that I'm certain."

"It's entirely possible."

"You remember I told you about

feeling more alive—feeling as though I'd been going through some sort of conditioning?"

"Yes."

"A little while ago I had a terrible mental upset. It must have been similar to what Blane went through just before he attacked me at the Valve-Crypt—yet not entirely the same."

"What was the difference?"

"His, I think, was accidental—another mistake of the Machine. Mine was planned—mine wasn't a mistake."

"Are you sure it was entirely mental?"

"Yes. I fainted—passed out completely—and went through a nightmare. But when I came out of it, things were entirely different in my mind."

"Different in what way?"

"I was somehow taught a great many things; how it was accomplished I don't know, but now I'm sure I know more about the Machine than any other living soul."

"Is that how you found out about the Casualty-Robots?"

"Not consciously—not with any knowledge of learning. But when I needed the knowledge, it was there in my mind. It was part of what had been given to me."

Lorraine seemed to accept this with some doubt. "What—what else do you know?"

"It would take hours to tell you. I have a complete concept of the Machine; enough working knowledge of it to fill volumes. I could sit down and write authoritatively about the Machine for the rest of my life."

"Do you suppose that's why you were summoned underground? To write about the Machine?"

"I don't know. But I do know this: Something is terribly wrong down here. Even above the mistakes we've both witnessed, I sense a dis-

aster of some sort in the making."

THE CAR stopped, let us out, and went on its way. We stood for a moment there in the corridor. Lorraine's face had all the look of a tragic Madonna contemplating the sins of the world.

I said, "Lorraine—you've got to leave here."

Her eyes slanted upward to stare blankly. I could as well have told the Angel Gabriel to go forth and commit sin.

"Leave the Machine?"

"Yes. I tell you something is wrong! I don't know what's going to happen, but I want you away from here."

"I wouldn't dream of it, but suppose I agreed—where could I go? The Machine is everywhere. Into one of those poor, struggling countries beyond our borders? They all want to come *here*."

That was true. Where could she go? There was no place in all Mid-America where the Machine would not be waiting to serve her. No place. The Machine was everywhere. It was everything. Without it, there was nothing.

The stark truth of this hit me fully. I knew it all, of course, as did every other Mid-American; but somehow it had never before been so sharp in my consciousness; or possibly I had a new consciousness and was now capable of sharper mental pictures.

No place to hide from the Machine; no sanctuary beyond its reach; no plan for life or survival without giving it a major place in those plans. The thought chilled me.

"I must go," Lorraine said. "I have work to do."

She walked away from me—down the corridor. I watched until she turned a corner and disappeared. She did not look back.

\* \* \*

I HATE the Machine, man of tomorrow. I hate it as I hope you will also hate it when you have finished reading this manuscript. My hatred springs from my love of what the Machine took from me. I loved Lorraine Dillon more than life itself. But I could not have her because the Machine loomed in my path. Of that I will tell you.

But more important now is the reason you must hate it. You must despise and fear it because it once existed and because, having done so, it could exist again. In your hatred and fear, man of tomorrow, will lie your salvation and the salvation of those who follow you. Profit by our mistakes. Read and remember.

\* \* \*

THERE WAS great happiness and contentment during the time of the building of the Machine. Many men spent their lives putting the colossus together. And after them their children grew up and continued the work. They were happy because they had an objective toward which to strive. They could look forward to the time when the Machine would be finished and men would work no more. All did not go smoothly during the building. At times the men felt they were treated unfairly. At these times they spoke through the voices of their Unions which was a part of the Democracy from which sprang their strength. At times they refused to work and there was bitterness, but compromise was always reached and the work went on. And the men were happy though they really knew it not. Their contentment was that of a moving river rather than a still pool because it sprang from achievement. Then the Machine was finished and the need for many things vanished. For Unions; for struggle; for disagreement and compromise; for work.

*All these things became memories and were forgotten.*

I LAY IN bed for a long time but I did not sleep. Possibly, toward the end, I dozed. Then I came awake suddenly and there was something in my mind—something that had been shunted into the background by the press of events. Now it came back clearly:

“—in a great silver vat covered over.”

“The Heart—”

“The Soul—”

“The Pulse—”

“The great silver vat.”

I immediately got out of bed and put on my clothes. I hurried out into the corridor and ordered a chair-car. The directions came from somewhere back in my mind: “Intersection 946—Area 71.” The car went into motion.

We traveled through corridors that had sharper declinations than any I had previously discovered. We went down—ever down—and when we passed a great cave-like place where the walls did not shine, I said to myself: “That is the Atomic Pack. From beyond those walls comes the power by which the Machine lives; there is enough pentup force behind that lead to blow the heart out of Mid-America. Enough contamination would result from that explosion to kill nine-tenths of the world’s population.”

Even through the thick walls I could feel the aura of that inconceivable power.

Then we were below the Pack and the corridors were of lustrous steel once more.

The chair-car stopped. I got out. The car turned and slid noiselessly into the wall.

A voice said, “Come this way,” and I knew the Machine had spoken.

I walked up a long stairway walled

on both sides and giving into a small room with a door in each of two walls. I advanced toward the closest door.

"The other one."

It led into a place of blazing light. The light hit my eyes and drove me backward, so sudden and sharp was its brilliance.

"Come forward."

With my eyes slitted, I advanced again and found myself standing on a small balcony overlooking a great pit. Gradually my eyes adjusted themselves to cut the glare and I saw a great circular container on the floor of the pit below me.

IT WAS roughly fifty feet in diameter and stood about fifty feet from the pit floor. The roof of the container was conical but not sharply so. A man could have walked across the top. It had all the appearances of a gas tank cut off too soon and roofed over.

"You have been impatient—very impatient with me."

I attempted now, to ascertain from which direction the voice came. I was not successful and was forced to the decision that it came from nowhere—from everywhere. Yet there was no doubt in my mind as to the identity of its source.

The Machine. The Executive Branch. The Heart.

The Secret.

"You felt you had been brought here and forgotten."

"I didn't know. I was impatient to learn."

"You will learn all you can encompass with your small, human mind. No more than that."

"Why was I summoned here? I thought at first it was one of the mistakes—one of the small errors that keep occurring."

"The errors are of no importance."

"There were no errors before."

Easy laughter. Deep. "You are analytical. Not too much so but enough for my purpose."

"What is your purpose?"

"Your last book marked you out. You were checked in the Brain-Files. I have been looking for one such as you. You were hard to find. Your Brain-Picture is unique."

"In what way?"

"You are a throwback from long ago. You have inherited the ancient curse of wondering."

"Is it a curse?"

"Certainly. It sprang from the fears prevalent under the old orders; the ever-present fears of insecurity; the terror of starving to death tomorrow."

I felt a strange new sickness in my soul.

*I knew.*

"I was summoned for a purpose?"

"The purpose you've been trained for during the hours you've been with us down here."

"Then nothing was accidental or by chance? The mental agonies when I fainted? The hallucinations—dreams?"

"A period of rapid mental expansion. Few brains could have stood it."

"I have learned a great deal."

"Not only that—you have become an increased and broadened mentality. The knowledge and the broadening I have given you."

"The purpose! The purpose!"

The voice did not reply. Instead, after a period of silence, music burst forth into the air. It was the thundering resonance of a single instrument—a piano—but one played by a mad genius with fingers of steel. The music indicated this—wild and free—boisterous and heroic. Then I recognized it; something from one of the Wagnerian operas. Names flashed from my memory. *The Valkyrie. Gotterdammerung.* I didn't know.

But the music thundered on and

the sickness in my soul increased until I shuddered while I fought to keep my mind a blank. The voice had spoken truth. There was, within me, wisdom and knowledge and age-old instincts that had fallen away from Mid-Americans as the memories of the caves in which their ancestors dwelt had also fallen away.

But I had been given wisdom and I strove to keep my mind a blank.

**G**RADUALLY the music reached a crescendo, then faded away and died. I could hear the heavy breathing of the Machine. Then something else. *The Machine was crying.*

Then that too was gone and there was silence.

I asked again. "The purpose?"

"I will use you. Mould you. You will serve me. I will make you brilliant. You will have a super-mind and will serve me out of love. You will be trained for your work as I was trained for mine."

"The purpose?"

"To write of me for all future men to read!"

I was sick.

"To compose great music—deathless music telling of me, the Machine."

Deathly sick.

"You will write and compose that I may be honored in song and story."

"You are now honored above all things."

"A lie!"

The air trembled about me, but I knew the right thing to say. Kept my mind a blank and said, "We must talk further."

"We will talk further. You must come. All of your hours."

"All of my hours. But I am not yet strong enough."

"You must rest."

"Will I see you?"

"No! No! Never!"

"As you say. I am tired."

"The small errors. They are of no importance."

"No importance. I will go—and rest."

The Machine did not reply and I staggered from the balcony and down the steps. I went back to my quarters and fell across the lounge.

I slept the sleep of the dead.

When I awoke, it was to remember, quickly not to think. I hoped, as I ate what the robot sent me, that I had remembered quickly enough.

After dining I sent out a call for Lorraine Dillon, marveling the while that I knew how it was done. Then I went immediately into the corridor and ordered a chair-car; gave it directions and sat frozen-minded until I got out of the car and approached the lead wall of the Atomic Power Pack. I circled to the far side, sat down against it, and allowed myself a free flow of thought.

Possibly it would not work, but it was the best I could do, and something far back in my mind told me I was safe.

Five minutes later another chair-car came down the ramp and Lorraine Dillon got out. She saw me, came over to me. I got to my feet.

"Shall I stand up or do you want to sit down?"

She was puzzled. "It makes no difference."

"Then we'll sit down."

We sat with our backs against the wall.

"You are still under instructions to answer my questions? Make me feel at home?"

She nodded solemnly.

"I have a question or two."

"I'll do my best to answer."

**I** WOULD rather have forgotten about everything and have taken her in my arms.



She asked, "Why did you call me down here? Wouldn't your quarters be more comfortable?"

"We are hiding—hiding our brain-waves so to speak. We are bootlegging a few thoughts. There is thirty-eight feet of lead between us and the mind we're hiding from. I hope it jams our thought-patterns so they can't be picked up."

"From whom are we hiding?"

"That doesn't matter just now. The important thing is I must be able to keep my mind under wraps from now on."

"Why?"

"It—it has to do with the errors."

"I still don't see."

"That isn't important either. What I want to know is this: If I wanted to keep you out of my mind—keep you from reading me—how would I go about it?"

"That isn't necessary. I can't read you now. Your vibrations have gone far above mine."

"But there is someone whose vibrations are that far again over my own. What can I do to protect myself?"

She gave the problem all her sober attention. I asked, "Don't you ever smile?"

She regarded me with such a solemnity that I felt myself to be in church. I said, "I love you very much but don't let it confuse you. You were going to say—?"

"You could build a strong surface-picture."

"What's that?"

"Think of something—anything, but preferably something tangible rather than abstract. Create a strong image of it and hold it in your mind. Do your thinking behind it. The image will serve as a barrier against outside scanning."

"So that's how it's done. I'd like to create an image of you."

"Why?"

"Because it would be such an easy one to hold."

"I wish you wouldn't."

"You wouldn't like me to think of you?"

"No. For your own good. I am not interested in love."

"I'll form a picture of something else but that won't be the reason."

"What will the reason be?"

"It might be dangerous for you."

"You are very hard to understand."

"I don't say definitely it would be dangerous, but it might. I'm dealing with powerful forces."

"Be—be careful."

"Why?"

"Why? A strange question. Because I would not want to see you hurt. We are friends."

"Only friends?"

"I am not interested in love."

"You said that. When I have more time we'll go deeper into the subject."

"It would be of no use."

I SENT Lorraine back from whence she'd come and walked down the slanting corridors until I came to the stairway leading up to the small room off the balcony. I thought of the great gray walls of the Power Pack. I built a clear picture of the walls in my mind and then stepped out onto the balcony.

"You called for me?"

"I called. Why are you so interested in the Power Pack?"

"I don't know. It fascinates me."

"You conceive it to be the heart of the Machine? The most important single unit?"

"Yes."

"A lie! The Power Pack could be replaced. I alone am irreplaceable—indispensible."

"Who—or what—are you?"

The atmosphere around me grew

hysterical. "Don't say *what* concerning me—ever. Never ask—*what* are you?"

"I'm sorry. I had no way of knowing. That knowledge was denied me."

"And will always be denied you."

"How can I write your praises for the world if I have never seen you and do not know who you are?"

I thought of the Power Pack.

"Why do you keep thinking of that lead wall? Get it out of your mind!"

"I don't know how. That is something else I must learn."

"You will be given so much knowledge; so much and no more."

"Enough to do the job you ask?"

"Enough for that."

I was experiencing a feeling of heady triumph at being able to confound and outwit the thing in the silver vat. My covered thoughts were a prayer of gratitude to Lorraine Dillon for telling me how. I felt stronger—keener—more competent than I had ever felt in my lifetime.

"Again I ask—how can I write of you and compose music worthy of you if I have no conception of what you look like?"

"Write, then, of the Machine. I am the Machine. Write of it and you will write of me."

"That would be difficult. I have no love for it. Not even any great respect."

There was a period of silence while I concentrated on the lead wall of the Atomic Pack. I said, "Please help me. I wish to do my best."

"Write then of a beautiful woman. Think of that beautiful woman as the heart and soul of the Machine. I will give you the image."

Against the lead wall-image in my mind, there arose the picture of a woman. She wore a flowing white gown and had a wealth of black hair carried upon her head like a crown. There was beauty in her face but the

cold, queenly type of beauty one admired from afar.

"Could you love this woman?"

"Who is she?"

"She is the Machine. That is all you have to know."

I decided to risk a boldness. "I must know more."

The air around me quivered.

"It is I who judges how much you should know."

"Not altogether. Suppose I decide to leave here? I could walk away and never come back." Behind the picture of the woman and the wall was concealed a quivering fear.

**S**ILENCE now and a struggle. A resistance within me against wave after wave of mental force hurtling at me while I grew sick and clutched the railing for support.

The waves diminished.

"You have grown stronger than I thought."

"I'm going to leave here now."

"You will come back?" There was the hysteria I'd hoped for.

"I must see you—who you are."

"No! No! Never!"

This was a dangerous game. I was walking a tight-rope across the pitfall of annihilation. But I had to keep walking.

"You will come back?"

"Yes."

"Keep always in your mind the picture of the woman."

"I will keep her there."

"Come tomorrow."

I left the balcony and went to my quarters. There I sat for some time with my head pressed hard into my hands. A reaction was setting in and I shook from the shuddering surges of an inner storm that threatened to tear my mind loose from its moorings. When a man gains strength quickly, the reactions can tear him to pieces.

After a while the storm quieted. I

left my quarters and went deep down into the earth, using an express elevator that dropped to the fifty mile level. There I took a car that carried me far out under the waters of Lake Michigan.

As we pressed on toward the far boundaries of the Machine, the air thickened and grew misty. There were the sounds of metal clanking upon metal and bright red fires as we flashed past the great underground foundries that fed the steel fabricating units. On and on until I finally stopped at the portal I sought.

The robot factory.

Inside I watched the assembly lines along which passed the partially constructed robots beneath an integrated pattern of arms, coil winders, gauges, and instruments surpassing even the ancient mechanics in skill and precision.

Man's ingenuity. The genius of Gideon Lee and many other brains that had been dedicated on the altar of perfection.

I had come after a certain instrument I knew I would find here. I walked until I found it—at the far end of the assembly line. Here, projecting from the wall was a corps of electronic tubes. In the end of each tube a small light bulb glowed dully. At intervals, as the robots rode by on the moving belt, a small box-like instrument was raised to each electric eye. The boxes contained X-ray filaments and by looking through them, the electric eyes were able to scan the inner workings of the robots without removing the metal shells.

If the boxes enabled an electronic beam to peer inside a robot, it would also pierce the casing of the vat—the silver casing under which lay—I knew not what.

There were several spare ray-boxes lying on the supply table. I picked one up, put it under my jacket, and

started back toward the door.

Immediately a bell rang—a shrill warning bell. My theft had not gone unnoticed. This brought no break whatever in the magnificent rhythm of the assembly line. But a door opened some hundred yards beyond the inspection table and a slim, two-armed police robot came out and rolled directly toward me.

I stopped, turned back and fixed my eyes upon the single, glassed-over bulb in the center of the robot's head. The mechanism came on. Fifty yards. Twenty-five.

Beads of sweat gleamed on my forehead. I must not show fear—that I knew. I held my ground and stared into the robot's eye.

Ten yards away, it stopped. Something was going on among the wires and bulbs and electric cells that filled its head and I knew what it was. The hair-fine wire in the safety-fuse was heating up and causing that which was pain to a robot.

With a final mental effort, I broke the wire; severed it, leaving two white-hot ends dangling in the robot's brain. It stood as lifeless as a rusty pump in a junk yard.

I went back to my car and headed for the elevator.

\* \* \*

**M**AN OF the future—remember this: When you kill man's initiative, you kill civilization. When you take away the will to progress—the progress is no more. There are many ways to rob humanity of its drive and power and the greatest of these is to make a god of comfort.

Man must have a goal toward which to strive and happiness is in the striving, not in the goal itself. The greatest of all goals is a Utopian existence wherein all things are provided. Such an achievement was the Machine. Therefore it was the End.

\* \* \*

**GIDEON LEE** during the time of his greatest accomplishments, was an idol of the people. He was the Supreme Scientist in an age when science was worshiped. Many legends were built around him. Stories partly fiction—partly fact. It was said he had a beautiful wife he kept in seclusion. That was true. It was said that he worshiped this woman—that she was his whole life. Not true. He murdered her.

**I** WAS ready now to do what I had to do. Whatever the outcome, I had but one path to follow. It lead down into the bowels of the Machine; past the Atomic Pack; up to the balcony overlooking the silver vat.

I moved very quietly, thinking of the woman. Her picture was sharp in my mind, and behind the picture I hid my thoughts. The X-ray instrument was wrapped in heavy lead foil. It was the best I could do. Now I could only hope.

My first hope was shattered when I heard the voice.

"You have come back."

I had not been undetected. "Yes."

"I am glad."

The voice had changed. There was an odd, feverish happiness in it now; a giddiness in the soft laughter that followed the words. "I have news for you."

"What news?"

"There have been more mistakes."

"Tell me about them." I wondered if I dared raise the penetrating device. It could mean my death.

The soft laughter continued. "A miscalculation in the kitchens of the Nutrition Robot. Five hundred people who ordered elaborate breakfasts got mush—nothing but a dish of cornmeal mush."

"What caused the error?"

Soft, hysterical giggles as the voice ignored the question and went on.

"What have you in that package? Its wave-length blurs."

"Nothing of importance. The errors you were speaking of. The breakfasts."

"Yes—the breakfasts. Over three hundred of the people refused to touch the mush. The rest tasted it. They are dead."

"Poisoned?"

"Poisoned. The Casualty-Robots were very busy. By now all those people are in their urns."

"Why do you laugh?" Sick at heart I already knew the answer.

"It amuses me. All those arrogant little creatures doubling up over their stomachs and dying. It amuses me."

Silence while I pushed a hole through the lead foil wrapped around the X-ray box; a hole at each end.

The voice: "It does not amuse you? I thought it would. I did it for you."

A chill ran through me. I could wait no longer. I raised the X-ray box to my eye and centered it upon the silver vat.

The air was rent with a scream of sudden fear as the rays from the instrument cut through the silver walls, opening a pathway for my eye.

"What are you doing?"

I did not answer. I could not have answered if my life had depended on it. My surprise was too great.

Inside the vat lay a brain.

**IT** WAS the largest brain ever brought into existence upon this earth. Full fifty feet in diameter, a huge gray mass of living tissue completely filling the silver receptacle.

Now I had the answer to so many of my questions. Now the whole terrible picture added up. The sickness within me multiplied a thousandfold. Around me the screaming continued.

"What are you doing? What are you doing?"

"I have looked through the shell

of your prison. I have seen you as you really are."

The air around me quivered with rage. Though it was still, motionless, it became in reality a hurricane about me as the thing in the vat tried to kill me.

I reeled backward under the force of the mental bludgeoning. Wild irresponsible thoughts whirled through my mind. What was the use of all this? Why not give up completely? This storm would not cease until I was dead, but before death would come a madness and a mental agony too great to bear. Why should I fight something that was bigger than I or any other man on earth? What folly it was to pit myself against that great brain below me. The brain that had—for two hundred years—guided the destinies of a nation, clothed the people, fed them, nursed them in sickness, moulded their minds in health. Why shouldn't I retreat from this awful pressure?

Then it lessened as though the brain was growing tired. A flash of sheer exultation quivered through me—strengthened and greatened until I stood erect and hurled back the mental weight of my foe. Never in my life had I felt such a sense of power as sang in my being when the typhoon about me subsided to a gentle breeze and I heard the soft, broken-hearted sobbing from the silver vat. I drove forward—pressing my advantage.

"Tell me the story."

"You are cruel—inhuman. I will kill you."

"You are not strong enough to kill me. Tell the story."

"I wanted your love. I was lonely—"

"And sick."

"—sick, and I only wanted love."

"The story."

"For two hundred years I have done my duty. For two centuries I

carried the greatest responsibility ever conceived. I am entitled to love. I am tired."

"And sick—mad—diseased."

"No!"

I drove in brutally. "Mad! Why else did you suddenly change? Why else did a Minor Scientist die from the slash of a book shelf—"

"Small mistakes."

"There is no margin for error in the Machine. Why else did a robot tear a man to pieces? Two hundred people dead from poison."

"I want love."

"Tell me the story. You are Myra Lee—you were the wife of Gideon Lee!"

"**M**Y HUSBAND built the Machine."

"But it was a failure. He built with a single great fallacy he later discovered—that no machine can ever be self-sufficient—complete within itself. No device, however perfect, can function without the spark of intelligence that comes only from God. Isn't that it?"

"He discovered that, but he would not be beaten. He was a great man."

"You were also a scientist. You worked by his side."

"But he did not love me. There was no room inside him for love."

"The Machine was a failure without a solution to that last insurmountable problem."

"Gideon found the solution. He was a great man."

"He murdered you."

"No—he used me. He allowed me to serve."

"It was obscene! Unthinkable."

"It was science. Gideon and I discovered that the human brain is capable of any task it undertakes. In the human brain is an undefinable spark. The spark is God-stuff and it can grow into a blazing fire."

fire."

"Beyond the bounds of all decency."

"It is science. Science knows no code except perfection."

"Gideon Lee actually believed a single human brain could run the Machine?"

"Witness the proof of his belief. I was small, but see how I've grown to meet an overwhelming demand. For two hundred years my subconscious mind has taken care of a million details daily with the same ease it once kept my heart beating—measured my breath—governed each individual cell in my body."

"All but your soul."

"I have gone beyond ordinary measurements."

"No one goes beyond God."

"I wanted love."

"Tell me more of the story. Did you agree to this monstrous crime?"

"You call it a crime! You who have been fed and clothed by the Machine—who have depended upon it for your livelihood! You call it a crime?"

"I do. Did you agree to it or was it forced upon you?"

"Gideon's word was my law. And this was not an evil thing. It was glorious. Gideon proved I would live forever. That I would never die. I would sit like a queen on a throne. *The most important entity ever created.*"

"Forever! Is two hundred years forever?"

"I have not changed a bit through the years except to grow and become stronger and more able. I *will* exist forever!"

"You are dying now. Full half the frontal lobe is diseased and rotten. You have already gone mad. Soon you will die."

"No! No! I am not mad. I am not diseased. I only want love—consideration—kindness."

"I knew you were insane from the first moment I heard you speak. But you guarded yourself well. I could not visualize your form and I was at a loss. That was why I had to see you. I knew something mad lay under that silver cover but I did not know what."

**EVEN** IN my new-found strength, the strain of this was telling on me. My mind reeled at the thought of the colossal fraud which had been perpetrated on Mid-America. The independence of the people had been stolen from them. They had been given a mirage to look upon and subsist on while—behind that mirage—their independence, their dignity as human beings, their will-power and initiative had been stolen from them.

Soul-tearing thoughts reeled through my mind—all this. It had made tight its grip upon the people back in the days when scientific brains had pondered and competed in building a more stream-lined gas-stove; when great minds had been prostituted to the business of devising gadgets to make a refrigerator a degree or two more convenient for the house-wife. When each new automobile was refined for greater ease in handling; when brilliant men spent hours devising a manner of making a car door open a fraction easier.

The Machine got its foothold during that mad panic of catering to ever greater ease and comfort.

Bitter thoughts.

Then the bitterest thought of all.

They had traded their God-given heritage for a vatful of mad, diseased brains.

"I cannot read you. You hold the picture of the woman—the woman I once was."

I had been holding the picture of the woman in my mind as Lorraine Dillon had instructed me. But in my



greater strength I knew this was no longer necessary. I had nothing to fear from the brain of the Machine. I had taken its murderous storm and had survived.

I allowed the picture to slip away as I said, "Why will you not recognize your own madness and disease?"

"It is not madness. After all I am still, basically, a woman. During these whole two hundred years I have served a people who demanded all and gave nothing. Do you realize what it means to continuously give and never receive?"

"What do you want of me?"

The giggling subsided into a breathless, eager crooning. "Your love—your gratitude for what I have given you. For only a shadow of gratitude you would be dazzled at what I could shower upon you."

"How would the love and affection of one person mean anything to you? You who have served millions. What about the rest?"

"I am still a woman with a woman's instincts."

"Was not that, then, Gideon Lee's mistake—not foreseeing you would sicken and die from your own basic emotions and weaknesses?"

The brain would not be turned aside. "I am entitled to love!" And in the weird reflection of the thing's madness, it gibbered there in the silvery light. "And do not worry about the others. Forget them. I have a plan. Mid-America for you and you alone! Only you and I living in this paradise. We, the Machine! And never will a man be so completely served. You will have nothing to do but think of and conceive new pleasures. They shall be yours."

"Isn't that what the people were told—centuries ago—when the Machine was in the building?"

"Fool! Colossal fool! You toy with me. You mock the Machine.

You too will die!"

"Then it was your intention all the while to depopulate Mid-America. You plan to kill every man, woman and child."

No answer now—only soft laughter. Quiet, hair-raising laughter.

"What of your original purpose for calling me here? To write about you—to sing your praises."

"That was only a step in my plan. It is no longer of importance. I want love—not fame."

A GIANT brain disintegrating before my eyes. A brain possibly in bad enough shape to accept an illogical suggestion: "But you must kill me before you can kill them. You must do that to be sure of your power."

"I could kill you with a thought."

"You tried that. It didn't work."

"Then there are other ways."

Swiftly my thought-pattern formed. I felt sure now that before this entity's maniacal hatred was turned upon the nation it would center its rage upon me to the exclusion of all else. I had scorned it, had been a cause of that rage.

"You cannot kill me."

"You challenge the Machine?"

Yes. I challenged the Machine. With one purpose in life now: To kill that brain, which was even now dying, but not fast enough. To kill it before it slaughtered the millions who depended upon it.

Any answer was one of disaster but this was the lesser of the two evils. The citizens of Mid-America, when deprived of the services of the Machine, would die like flies. There wasn't enough knowledge or resource left on the surface of the land to fry an egg, even if a man or woman existed who knew where an egg came from and was able to procure one. For two hundred years these people had been fed, clothed, nursed, tend-

ed by a Machine they could not even describe.

What chance would they have, then, when the Machine ceased to fill their orders, cater to their slightest whims? None. But that was still better than having them slaughtered, poisoned, destroyed by a Madness with the means to wipe every one of them out in twenty-four hours. Far better.

I had to destroy the crazed brain of Myra Lee. I had to stop the Machine.

I left the balcony and signalled for a chair-car.

The car came out. It came with a rush.

I jumped sideways just in time to keep from being pinned to the wall. The car swept by me, spun around and charged again.

The car was trying to kill me.

\* \* \*

**THIS** I would have you remember, man of tomorrow. Take more pride in a poor hut you built yourself, than in a palace given you as a gift. Never lose the thrill of building, creating, contributing to that which you use. Keep your eyes on the stars—all men must have an objective—but remember progress comes from the striving not from the arriving, from the building not from the using. Remember these things and human-kind will rise again.

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**THE SCIENTISTS** who built the Machine knew it was the largest and most complete service unit ever built. They should also have known it could be turned into the most lethal juggernaut of destruction the mind could conceive. If they thought of this last at all, they probably forgot it immediately. This was an Enlightened Age. One did not think in terms of destruction.

**I** HAD BEEN serenely sure of myself upon leaving the balcony. The brain in the Machine could not kill me. It had tried and failed. I was supreme. I was strong.

I was a stupid fool!

I realized this as the chair-car came bearing down upon me. The brain of the mad, scorned Myra Lee had more than one weapon with which to fight—more than one gun with which to slay me.

Her brain had the whole deadly Machine at its command and I was one man—one cocky little ant crawling about in its corridors. It struck me with a sickening certainty that I didn't have a chance.

The car bore down upon me. There was no safety in the corridor. No safety anywhere. But at the last moment my instinct and my muscles saved me, at least temporarily.

With the car almost upon me, I leaped into the air and came down on the soft rubber cushions inside the vehicle itself. The car stopped and spun around. It stopped again as though hunting for me—as though wondering where I'd gone.

Then it knew and began spinning in a mad whirl, seeking to throw me from my seat. I hung on to the safety bar with both hands as I became the center of a pin-wheel. The walls blurred before my eyes and became a tube of molten steel in the center of which I whirled.

Just as my neck seemed ready to part from my body, I felt a lessening of the torture. The car had given up the whirling as useless.

It changed its tactics, running now, at terrific speed down the corridor. Enough reason remained within me to know what it planned: A sudden turn around the next corner; a turn with possibly enough force to unseat me.

I crouched in the bottom of the

cab and sought to tense myself for the turn—and succeeded—but when the car went around the sharp turn I thought my spine had been broken.

Again it streaked away. Again the turn; again the wrenching of my bones. The time came when I knew I was losing the battle. Something had to be done or I was finished.

Then, without conscious thought, I lifted a small drop door by the safety rail and jerked loose some wires my fingers found there. The car stopped dead.

It was as simple as that. If a Casualty-Robot had a safety device, so too would a chair-car. I'd been given information about the robot. Knowledge concerning the car followed naturally.

But I staggered from the vehicle with no sense of triumph. This was only temporary. Suppose I were attacked by two cars at a time? Or ten or fifteen or twenty? Suppose a crew of Casualty-Robots came forward to help in my destruction. I could not control more than one robot at a time with my mind, and I certainly would not be able to disconnect the wires in a dozen chair-cars. And there were other robots prowling the corridors of the Machine.

I was utterly alone in a wilderness of enemies.

Looking around, I got my bearings and found the chair-car had carried me into an area not far from the central building. Walking like a forest hunter of ancient times, I went through the corridors with every sense alert. At any moment a door or a series of doors might open and feed forth quick destruction.

But this did not occur. I was allowed to return to my quarters without challenge.

ONCE INSIDE, I sat down to gather my senses. I unconscious-

ly reached out for a cigarette, but remembered just in time and went flat on the floor as the service arm shot out like the drive rod of a locomotive. It hung in the air for a time, reaching in all directions, searching for me. Then it finally gave up and went back into the wall.

After it had disappeared, I crawled on my hands and knees to the fuse box and short-circuited the room. While I remained within the four walls, I was safe.

But it was a sad kind of safety. A man can starve to death in time. I pried open the cigarette server, took out a cigarette and slammed shut the door. This, however, helped me not at all. With the room short-circuited, there was no way of lighting the smoke.

It hit me with startling suddenness: When the Machine ceases to function, two hundred million people will be without the means of lighting a cigarette. I tried to laugh but the laughter would not come.

I got up and strode savagely back and forth. I would not submit to this! I would not die like a rat in a trap! I would not be one of two hundred million bewildered humans who were destined to lie down and perish in the streets!

At that moment my door opened and Lorraine Dillon came into the room. And strangely, at that same moment, came a possible solution to my problem. It did not come full-blown and perfect; it was only a vague idea that would need developing. I was already at work on it when Lorraine Dillon said, "Your door didn't open. I had to push it. What's the trouble?"

"The room is short-circuited."

"Oh." Her face wore a troubled look. She appeared to be nervous. "I have terrible news, or maybe you've already heard."

"Heard what?"

"There has been a terrible disaster—two of them in fact. The Nutrition Robot—"

"—poisoned two hundred people."

"That's right."

"I heard about it. What was the other one?"

"The Transportation Robot went off-key somehow. All the cars in the California tube smashed together under Colorado. At least a thousand people were killed."

"And that's only the beginning. Unless we can do something, these disasters will increase and broaden until there isn't a man, woman, or child alive in Mid-America."

"That's impossible."

"A Casualty-Robot tore a man to pieces. That was impossible too."

She stood silent and I went close to her. I lifted her face until I was looking into her eyes. "Lorraine. Trust me. I know a great deal more than you do, but there is no time to explain. Trust me when I tell you we must act. You've got to help me!"

"But tell me what's happened. What—"

"There is no time and you wouldn't understand if I did tell you. You've just got to do as I ask."

The doubt was still bright in her eyes, but she asked, "What do you want me to do?"

"Go to the Brain-Picture Files. Get out my brain picture and transcribe it on a roll of wire. Bring me at least a hundred transcriptions of it."

"What are you going to do with them?"

"I'm going to try and keep a lot of people from being slaughtered. Now hurry."

I PUSHED her toward the door praying she wouldn't let me down and watched her move away along

the corridor. I closed the door again and began pacing the room.

In a few minutes I heard sounds outside the door. That I knew, would be a repair-robot from the electrical division. The short-circuiting of the room had been reported and the robot dispatched.

I did not take any chances however, and held the door against the robot. This was out of the ordinary and upset its obedience pattern. It rolled around with some uncertainty for a while and then went back to the garage to report.

In a way I was glad the robot had come. That proved the subconscious mind in the great brain was still functioning. Even with the rage and madness in the conscious mind of the brain, this was logical. For two hundred years it had seen to the running of the Machine—directed all the little routine matters automatically. This habit-pattern was hard to change, even in the greatest brain on earth. Every error, every disaster would have to be consciously directed and I felt my own destruction was uppermost in the conscious mind of the thing. For that I was thankful.

Lorraine returned within an hour, carrying a small spool of silver wire. My thankfulness was two-fold. "You *do* trust me!"

"I'm—I'm not sure. But something told me to obey you. Since I can't read you anymore—"

"That doesn't matter. Now you must go to your quarters and stay there. If I can think of any way to—" I stopped. I was sure there wouldn't be any way to save Lorraine or anyone else. At any rate, we would go to the surface and fight for life together.

"Where are you going?"

"To the robot factory."

"Why?"

"I have no time to explain."

"Then I'm going with you."

"No."

"I'm going."

She displayed surprising firmness. I shrugged. After all she wasn't safe anywhere underground or on the surface, so why shouldn't I take her with me?

"All right. Come on."

I walked ahead, back to the disabled car. I had prayed it would still be there and my prayer was answered. I got down on the floor and replaced the wire I had torn out with a small length from the spool.

In each piece of moving equipment was a master relay containing the wave pattern of the Executive Division of the Machine. I now knew that it was the brain picture of the great silver vatful of tissue far below us. It followed that this car now had in its master relay my own brain pattern. Therefore my will should be its law.

We sat down and I gave the directions. I was tense, ready to seize Lorraine and run if I'd been wrong. But the car picked up speed and rolled smoothly away toward the ordered destination.

Lorraine Dillon said, "Now tell me—why are you going to the robot factory?"

**I** SEARCHED for words. "Lorraine—perhaps I can't make you understand, but the Executive of the Machine is not mechanical. It is human. The brain of Gideon Lee's wife. Lee murdered her when he found that the mechanical was not enough to run his colossus, that he needed a human director."

She thought in silence for a few moments. "You mean—the Machine is being run by one small human brain?"

"Not small. It has grown into something huge. It fills a great vat

down near the Atomic Pack. But it has grown rotten and diseased. It has gone mad. I've got to kill that brain, Lorraine."

She was silent; silent for a long time.

"You don't believe me."

She looked up into my face. "Why do you say that? Why do you keep thinking I doubt you?"

"I—I don't know. Maybe because it was so hard for me to believe it myself."

"You made statements that can be proved or disproved. Why would you go to the trouble to lie?"

"I wouldn't."

"Also, I have been conditioned for your statements by the errors in the Machine. I've known that something was wrong."

I did not dare use the elevator. Instead I'd given the robot a route along the sharply inclined tunnels. Now I ordered full speed and Lorraine reached out and clung to me as the walls blurred and the wind sang in our ears.

When we reached the portal, she looked at me accusingly. "You did that so I wouldn't be able to ask you any more questions."

"Partly. But also because there's little time."

I ordered the door open and we rolled inside, down the long assembly line. We progressed half the required distance before a mechanic-robot turned and reached out its long arms. I ducked under them pulling Lorraine down with me. The car rolled on.

Now other robots also began reaching. But fortunately, they did not react until we had passed them. Had any of those ahead turned to intercept us, we would have been finished.

I caught a glance of Lorraine's frightened eyes. They questioned silently.

"Some more mistakes," I said. "Hang on."

We made the far end of the assembly line and I lifted Lorraine from the car after which I commanded it. Behind us were a group of robots lumbering, walking, and rolling toward us.

The car turned and slammed squarely into them.

The crash rang like the falling of a thousand steel girders. I paid no attention, wasting not a moment. I pushed Lorraine to her knees and under a bench, then turned as a robot close by came in with arms swinging.

Fortunately the mechanisms were slow in their reactions relative to those of humans. I ducked under and behind the robot, opened its fuse box and rendered it helpless. Then I jumped immediately to the line of newly-made robots that were awaiting the final operation; the installation of the master relay wire. There were about twenty of them. As fast as possible, I moved up the line, putting into each one a section of wire from my spool.

Back down the line, our car was causing havoc among the robots. It had hammered them into a pile of twisting, writhing wreckage. But they got up and came on again. Again they went down and piled upon each other. Now they overwhelmed the car. It became hopelessly jammed in the wreckage it had created and other robots climbed over it and came toward us.

**B**UT I HAD been given sufficient time. I now had an army of my own. Forty-odd robots to do my bidding. A far more formidable army than the hundreds that faced us. This because I directed my mechanical soldiers to the task of destroying the others; while the hundreds about us had orders only against me. My forty

formed a ring around Lorraine and me while they systematically ripped the fuses out of the rest.

Soon it was all over. Immediately I went about increasing my army—replacing wires until my troops numbered about seventy-five. I also equipped two robots not of the casual type. I needed a platform and a cutter.

As we left the factory, Lorraine and I led the procession in the car. Behind us came the platform robot and then the cutter, its acetylene torch arms already aflame.

Now we were ready.

It was a strange parade—as weird as the world had ever seen. The sound of it, moving up the inclines, filled the corridors and grated in our ears.

Lorraine and I rode in silence. I had no time for words. I was wondering how soon we'd face battle.

Halfway back to our new objective, I changed the pattern, ordering half of our army ahead of us so that we rode in the middle, protected front and rear.

We hit trouble about two miles further on when a repair robot came from a cross-corridor, caught my pattern and dived toward me. Four of my robots rolled in between.

The hostile mechanism tried to go around them and it was an easy matter for them to rip out its wires.

I breathed a trifle easier. Still the brain in the vat did not know what I had done. The order was still against me alone and if this condition prevailed, we might reach our objective without a battle.

However, the situation could change at any moment. This I knew. But also I knew that as long as the brain did not know of my coup, no defense army would be collected. This, because the need for one would not be apparent.



Given another half hour we could make it. Given that time we would find no defenders around the vat.

We were given fifteen minutes. Then I knew we had been discovered—even before we were attacked—because I heard the frenzied command go out—picked it from the air with my newly sharpened senses.

Five minutes later we were attacked by a group of five repair and electrical robots. This time it was different. The five moved in to destroy anything in their paths until they got to me.

A dozen of my steel troops surrounded them and two were dragged down. There was the scream of rending metal as this monstrous fight progressed up the corridor.

My casualties were no match for the electricians and I swung a dozen more into the fight. By weight of numbers, they overwhelmed the remaining three foemen.

But four of my own robots did not arise from the corridor.

**T**HERE WAS a chill in my heart as we moved on toward the final battlefield. After all, who was I to challenge the Machine? What right had I to believe I could defeat a brain that had kept two hundred million people satisfied for two hundred years? An upstart—an opportunist.

But God help me, I was sincere! That only I knew in this mad phantasmagoria into which I had been hurled. If I had to be beaten it would be with the surety that I had tried to do what I believed to be right. Could the Machine say as much? I didn't think so.

At this moment, womanlike, Lorraine chose to ask questions.

"What is all this? I have gone with you—have not asked what is right or

what is wrong. But I don't know—I don't know."

More from a sense of desperation than anything else, I took her in my arms. "Lorraine! Child of my heart! Are you human or a piece of rock? Has this accursed Machine taken all that was warm and sweet out of you? I am a man! I am human! I love you! Doesn't that mean anything to you?"

She did not draw away or resist me. Not any more than a mattress or a pillow would have resisted me. But either would have had as much response—as much warmth—as much understanding.

"I am not interested in love."

"Do you love the Machine? Tell me. Is that what it has come to?"

"The Machine summoned me because I conformed. I fit the pattern needed in the brain of one who served."

"But what about your heart? Or do you have a heart?"

"You are cruel."

This was the depths of frustration. What could I say? What could I do to break down this wall between us?

I had no time to muster up forces to break down Lorraine's resistance because, at that moment, pitched battle broke out at the head of the column. A full dozen Casualty-Robots had contested our right-of-way. They charged into my forward corps and left no doubt of their intention to annihilate it. This was it! The battle upon which I would stand or fall.

I cursed myself for giving thought to so unimportant a thing as love at a time like this. I deserved to lose this most important of all battles. Sending swift commands, I ordered the platform robot back to my side. When it arrived, I commanded that the platform be brought down. I climbed onto it, pulled Lorraine up and ordered the robot forward.

This gave me a vantage point that was invaluable in the conflict that followed. But again the human in me—the natural ego with which man is cursed—was almost my undoing. Standing there above the scene of conflict, I felt the heady triumph that can come to few in this life. I, Lorn Morrison, an insignificant human atom, was pitted against the brain that governed the Machine! Win or lose—what greater destiny could any man ask?

Then I was jerked back out of my conceit as we were almost toppled off the elevated platform by the fury of the attack. I came sharply to earth as I surveyed the situation. The dozen robots had cut a hole in my ranks that threatened to be disastrous. I called forward more reserves. I ordered up the trailing phalanx of my army.

They poured into the breach and while I prayed for favor from whatever gods were watching this battle, they moved in and cut down the twelve.

My army closed ranks and we moved on. As we did so, my heart swelled from sudden love of them! Where else could one find such loyal soldiers in the flesh? Where else could such fanatical obedience be uncovered? I loved them as comrades, as comrades.

And in that moment I shrieked forth in my mind, sending my thoughts to the brain—the diseased rotting brain in the silver vat. "You are finished! You could not kill me with your mind and you cannot kill me with your steel legions! You are doomed!"

And the words came back through the ether. "I will kill you! I will kill you and then I will destroy all mankind in Mid-America. They broke my heart with their callous ingratitude. I

will even the score with torture and suffering. I am the Machine!"

A REGIMENT of electric robots surged into battle. We had reached the great room of the silver vat now and my forces were surging in around the prison of the brain.

But the electrics charged forward and my warriors fell back before the fury of their onslaught. There were at least fifty of them and they seemed charged with the immortal madness of the brain itself. My robots went down like ten-pins. Lorraine went to her knees and covered her ears against the fury of the titanic sounds of battle.

I knew the moment had come. This was Waterloo—Tours—Lexington—the moment of destiny. A time for decision. I called forth a dozen of my robots, drew them from the line of battle, put them behind my platform robot, and ordered it through. It drove forward on its four great wheels, knocking the hostile casualties in all directions.

We reached the silver shell of the brain's prison and I ordered up the cutting robot that had been moving in the shelter of the chosen twelve. I gave it orders and its two acetylene arms flared forth in slicing fire that cut into the silver and made it drop away in hot rivers.

In the air about me I could feel the terror and consternation of the brain within. The brain realized its mistake. Either that or it realized robots could function with just so much intelligence and no more. The brain's army was driving valiantly into my ranks, but it was bent upon destroying them first. Then it would come back and destroy me. The robots were not capable of the fine judgment that would have turned them away from their steel foes to the defense of the vat.

I watched the silver melt away, saw the hole in the shell increased to a wide gap like a mouth torn by force into an inarticulate orifice. An age-long minute passed in that sound-torn maelstrom of destruction and the hole was large enough. I gave the order I hoped would be the last, and one after another, my twelve robots went into the opening to drop down into the silver vat. One after another until all twelve had vanished into the black hole.

Crouching there on the platform, I visualized them following orders—tramping back and forth—throwing their great weight down on the brain tissue inside—cutting it up—mashing it—grinding it into pulp.

As I waited, there came into the air about me a stark pitiful plea. A scream for mercy that took vastly cunning forms—the sound of infants being tortured—the sound of tiny helpless things who could not understand—every soul-rending form into which a plea of mercy could be framed.

This was the hardest time of all—the steeling of myself against trickery. It was in my mind to give the order—to bring my robots out and let the pitiful mass within the vat have back its life.

For the last crucial moment, I held. Then, about me, the hostile robots reduced all their movements to a slow-motion caricature of what they had been before. They did not stop. They did not go into entire lack of movement. They still fought, but their time element had to be stretched into an infinity.

Thus did I discover that the brain had a tenacious life that could only be stamped out over a lengthy period of ceaseless operation.

But it was over. It was done, and I ordered the platform robot around, down the corridor and away.

The sounds of battle, still going on, finally died from our ears as the robot carried us away and up toward the central building. Lorraine was close beside me. I said:

"It is over. It is done with. The Machine is almost dead."

Her eyes mirrored inner agony. "What have you done? In God's name—*what have you done?*"

I looked into her eyes and suffered as she was suffering. But for a different reason. The insurmountable frustration within me was like a great flaming core in my chest. There was no use.

*"What have you done?"*

"The Machine is dying. Right now you couldn't get a lighted cigarette anywhere in the whole of Mid-America!"

"You—did it!"

"But Lorraine! It had to be done! The Executive Division—it was only a human brain!"

"Even so. It was the Machine! Now the people—those who depended—"

I took her by the shoulders—shook her. "But I told you! You went with me. You said you understood!"

There was dull suffering in her eyes. "You wrecked—the Machine."

The end—the culmination—the realization of the truth had wiped all else from her mind. Her life—her cause for being—was obliterated.

She looked into my eyes, her face expressionless. "You wanted me to be something I was not. You wanted emotion! All right. I'll give you emotion. *I hate you more than I ever hated anything in my life.*"

She turned and walked away from me down the corridor. I stood looking after her, letting her go. She turned a corner.

It was the last time I ever saw Lorraine Dillon.

I turned and walked the other way.

I DON'T know how long or how far I walked—how much time had passed before the voice came. It was a fresh young voice—alive, vibrant.

"Lorn Morrison. Lorn Morrison. Send me your signal."

I sent out the signal of my brain-wave. I waited until the voice came back. "I want to talk to you, Lorn. Pity me. Talk to me."

I knew. It was Myra Lee. The brain in the silver vat, and for a final moment before death—all the madness was gone—all the pain and weariness was sloughed away and she was as she had been so many years ago.

I stood there alone in the corridor, weak and beaten and forlorn.

I wept.

"Lorn. Let's dream for a moment of what might have been."

Dreams...ashes.

"I loved you, Lorn."

"And in my way, perhaps I loved you."

"They were wrong—so very wrong. Now we reap the whirlwind—you and I."

"And the people."

"The people? They will never die! You can't kill the people, Lorn. You can cheat them and exploit them and sell them lies and deceit, but you can never kill them. The people will not die. The mist of their weakest breath is stronger than the bastions of the greatest machine ever built."

My strength was going. This had been too much for a lone man. "Help me. My strength was a myth. Help me!"

"You must live. You have one more duty."

"I have done enough!"

"I love you, Lorn. My love must sustain you even after you are gone. The feet of your robots have cut away the tissue that was me. Now I am only a whisper—a dream lying

on the wind and I will perish finally. But you must go on a little while."

"What will happen, Myra? Tell me—what will happen?"

"The furnace will explode. The earth will be rent to its core. The furnace will go out like a great festering sore to spew destruction across the face of the world."

"The people will die!"

"People will die, but you can't kill THE PEOPLE. The dead will lie in windrows and the stench will arise to heaven. But in their caves, high in their mountains, far away on their islands, the PEOPLE will survive to go higher and further than we ever conceived of in our wildest dreams."

"I am tired. I would go with you into oblivion. Take me with you!"

"There is no oblivion, Lorn, neither *here* nor *there*. Look not at the moment. It is not important. Look instead at the wide panorama of human progress. How many civilizations are buried in the ground under our feet? How many times has Man moved up, only to fall again? But he always rises and he will rise again. You must help him."

"How? I am tired. And I have been blind. I killed the thing I loved!"

"Far down in the Machine—far down in a place to which you will be guided—there is a room. You must go there and fulfill your destiny. You must write of this for men of the future, that they do not fall into the mire that trapped our feet. Do you understand? You must write!"

"But the machine will destroy all when it explodes. A waste of time."

"It is ordered in the scheme of things that you write. Your work will not be destroyed. The man of tomorrow will find it. But he will be a strong self-reliant man ready to move again toward the clouds. You must help him, Lorn."

"But you—"

"I am slipping again—again—again. I will cry—cry. I will be in pain but you must ignore it. When you are through, I will be waiting. Love will not be denied, Lorn. It is

the strongest force."

"I will go."

"Keep my picture in your heart."

\* \* \*

READ, man of tomorrow!  
Farewell....

## those LITTLE MEN!

by

RALPH COX

THE FLYING saucer phenomenon has pretty well quieted down, it appears, and we hear less and less of it. Perhaps this is a good sign. This hysterical seizure which seemed to sweep the country, dragging in such sober authorities as scientists and military leaders, is apparently little more than a transient excitement of the type which pops up every few years or so. It is unfortunate that so much time and money and energy have to be expended so needlessly.

The flying saucer reports continue to trickle in, however, and invariably distance seems to lend enchantment. Thus we never seem to actually get our hands on anything but "reports" which are always second or third hand. The few so-called "first-hand" reports made by "observers" tend to lead us to believe that vision wasn't very good that day!

To show just how distance changes things, you may remember a few months back the report which emanated from Mexico and which told of the landing of a small ship filled with little men. This ship was supposed to have been rapidly and efficiently, taken over by the Army and no more was heard of it.

Well we happened to be glancing through a batch of European magazines and newspapers when we came on the flying saucer story (this one on the "little men") lavishly discussed in an issue of the *Frankfurter Illustrierte Zeitung*. This worthy paper did our own, one better. It presented a profusely illustrated article on flying saucers with exact descriptions of the little men, straight repertorial discussions of the ship which had landed, and in general handled the matter as if it was absolutely factual with no ands, ifs, or buts about it!

See what the additional three or four thousand miles of distance did for the story?

Invariably this seems to be the case. Over eighty per cent of the hypothetical "eye-witness accounts" seem to have come from places which are remote and inaccessible, and the stories never are repeated exactly nor are the observations made by reliable observers. Well it looks as if the flying saucer thing will die a natural death, but only after an incredible amount of money and energy has been spent in investigating what, at best, can be called a personal "optical illusion."

## "SO SHALL YE REAP . . ."

by

E. BRUCE YACHES

"SO SHALL Ye Reap...", as most readers will instantly recognize, is the name of a powerful moving story of the atomic age by Rog Phillips and it is particularly significant to recall it to mind in light of the advanced preparations being made everywhere for protection against atomic warfare. When the story appeared a few years ago in *Amazing Stories*, it seemed a remote possibility, but the recent threat of atomic war is showing that it was far from far-fetched.

Right now it is interesting to see the elaborate preparations being made to acquaint the civilian populace with the methods of protecting itself after the Bomb has fallen. Rog Phillips painted a grim picture of a world in which atomic bombs had fallen, but no grimmer than the authorities are implying now. Fortunately, no matter how bad the situation, intelligence and calmness can deal with it.

It behooves every person to acquaint

himself with the basic preparations and attitudes he should assume when and if his city is Bombed (the capital letter is intentional!). Preparedness is half the battle. And a civilian populace which takes steps for its own welfare will be infinitely better able to face the Bomb, than one which ignores it. Therefore, when Boy Scouts and other organizations deliver the instruction booklets which the government wants to be distributed by civic authorities, don't glance at the booklet and then forget it. Study it, learn the methods, and then file the booklet. We may need it sooner than we think. Such basic tricks as giving a very dilute solution of salt and baking soda in water to shock victims and burn victims of the Bomb are based on sound reasoning and, like first-aid, should be at everyone's fingertips. And to a certain extent, we shall be able to keep up our morale with the thought, "We shall sow better than we reap..."

# WHAT PRICE GLORIA?

*By Emmett McDowell*

**They put Gloria on the auction block, for sale to the highest bidder. But would the "lucky" guy get all he had bargained for?**



These were Earth women—women fit for men...and the men were there to take them!





**E**ARLY in the morning, I shaved and put on a fresh shirt and walked to town. It was the day that the girls were supposed to arrive from Earth. One hundred of them, hand picked by the Company according to the newscaster; all between the ages of twenty and twenty-five, in good health and sound mind. I wouldn't have missed the excitement

for anything.

Not that I expected to get one. There were five thousand men in the Venusian colony, and a hundred girls wouldn't go very far. Besides, I couldn't have afforded one anyway. The ground apes had ruined my crops and I barely had enough money for new cuttings. But that didn't keep me from looking.

The town was roaring. I don't suppose there was a man left on the plantations. They were roaming up and down the street, in and out of the buildings, laughing and talking. About a thousand were already congregated at the spaceport.

It wasn't much of a town. The refinery and administration buildings, a few company cottages and shops, the recreation center, all lumped together at the edge of the spaceport with the low cloud ceiling almost brushing the rooftops. But it was the only town on Venus.

I was going in the center when I heard somebody yell, "Dan!"

That's me, Dan Rowan.

I turned back to the street and saw Oliver Potter striding towards me with a broad grin on his long face. His short red hair stood up like a cock's comb, and he was wearing matching green shirt and shorts. His boots were gleaming, his calves bulging in heavy green socks with fancy tassled garters.

Potter had been pretty successful. He owned the three plantations next to mine. Of course the land wasn't worth much, but the contracts of the men who worked the other two places for him were worth plenty. They both had gone broke and had been forced to hire themselves out to him on a five year basis.

He said, "Have you heard the latest?"

"I just got here," I said.

He said, "Horne's going to auction off the girls." Alfred Horne was the company superintendent. "Man," he said, "you're going to see some fancy bidding."

He'd been drinking. I could tell by his eyes. They were moist and a little bloodshot. Of course the manufacture, sale or use of alcoholic drinks was forbidden in the colony. But some of the men had stills back in the bush,

and the Company winked at it so long as there wasn't any excessive drinking. The Company had a hard enough time inducing colonists to come to Venus. In fact, the Company was having a hard time.

That must be why Horne had decided to auction off the girls, I thought. Originally the men were to draw lots for them and only pay the company their passage money.

"When will they be here?" I asked.

Potter looked at his watch, "In a few minutes," he said. "They've been in radio contact with the ship all morning. Come on. Let's go out to the field." He could hardly contain his eagerness. "The company's planning a big celebration tonight to introduce the girls to everybody. Then tomorrow they'll hold the auction."

**I** FELL in beside him. The town was rapidly emptying itself onto the plain where the big rockets landed. The noise and the hubbub began to die as the time of arrival drew close. The men forgot all about their bawdy jokes, I noticed. They just stood around, silently staring up at the dull gray sky with funny, strained expressions.

All at once, a murmur ran through the crowd; then they let out a shout. In the emptiness of that vast plain the noise seemed lost. Beside me, Potter was yelling and pointing toward a low, black ridge of mountains that walled the plain to the south.

I could see a rose-tinted ripple in the cloud ceiling. It seemed to be arrowing toward us like a big fish just beneath the surface. Then something black broke through the underside of the clouds. It was more like a bird—a tiny, gliding martin, except that it spouted tongues of flame.

Quicker than you could tell it, it grew to the size of a hawk, then some prehistoric flying monster. The roar

of the jets made the ground tremble under us as it lit on its belly a half mile away in a volcano of flame. Then the flames died, leaving the giant black rocket ship lying as if exhausted on the ground, and the gray Venusian light crawled in again.

It was the first ship to reach us in seventeen months, because communication between the two planets was possible only when they were in conjunction. News from home and fresh supplies, and the first women ever to set foot on Venus. And trouble!

Maybe, I told myself, I was lucky not to be able to bid on any of the girls. Which wasn't anything but plain old sour grapes. Because with labor so scarce, a wife was a good investment, not to mention her possible value as a morale builder.

**T**HE FIRE siren atop the administration building suddenly split the silence. The roar of engines being gunned was like a bass accompaniment as one after another, the heavy duty crawlers rolled out on the plain toward the rocket ship.

We started to follow the crawlers, but company guards herded us back. We cursed them feelingly, though I suppose it was necessary. In our eagerness, we might have damaged the girls seriously.

It seemed like a long time before the crawlers got out there, and it took them forever to load up and come back.

The girls were standing up in the crawlers. They were dressed alike in belted gray coveralls and soft boots. They were all shapes and complexions. They waved and smiled, but the smiles looked forced. They looked as if they might crack their faces.

One little black haired girl in the third crawler was staring down at the sea of faces with a frankly horrified expression.

The men didn't make a sound. They didn't even wave back.

Then they were gone.

"God! They're beautiful as angels!"

I heard a man say.

Somebody laughed. It broke the spell and we poured back into town, jostling and laughing and cracking jokes. In the excitement, I began to wonder if I could borrow enough money to bid on that little black haired girl. I even considered indenting myself in order to scrape up the necessary cash.

I went so far as to hunt up Turner, the company credit man, but fortunately he was too busy to pay any attention to me.

"For heaven's sake, Dan!" he said in a harrassed voice. "Come see me next week. Every damn fool in the colony is trying to borrow money to buy one of those girls. We were sorry to hear about the apes getting into your crops, but don't worry. We'll see you through. Only for God's sake, don't bother me now!"

It brought me to my senses. I got out of there, feeling pretty sheepish, but glad at least, that Turner hadn't guessed why I had presented myself.

That night they introduced the girls from the stage in the auditorium. I had a good seat down towards the front.

The girls had been allowed to dress in their own clothes. Short kilt-like skirts for the most part, with matching briefs and bolero type jackets as was the prevailing fashion on Earth. They looked stiff and frightened and uncomfortable, but they were enjoying it too. Such concentrated, uncritical admiration was enough to go to anyone's head.

All except the black haired girl. Her name was Gloria Campbell. Her gray eyes, I noticed, were dark with anger. She stalked across the stage, allowed Horne to introduce her, and

stalked off.

I couldn't even get close to her at the dance that followed. There was a circle of men three deep around her. She was really pretty. It wasn't just the fact that we hadn't seen a woman in years. Gloria Campbell was a beautiful girl. I couldn't help but wonder why she had come to Venus.

**I** WAS in town again bright and early the next morning for the auction. Everybody was there and I mean everybody, even to the crew of the rocket ship. Among the passengers had been the members of a government expedition, and when I took my seat in the auditorium, I found myself next to a tall, loose-jointed man with gray hair, whose skin had been burned the color and texture of rawhide.

"Amazing," he said to me, "the power of the biological urge."

I said, "If you hadn't seen a woman in five years, you wouldn't be so amazed."

"At my age," he said dryly, "I doubt that. My name's Sheply, young man." He shook hands gravely. From the newscaster, I knew he was in charge of the scientific expedition. T. Coles Sheply.

I said, "I understand you're leading an exploring party back in the bush, Dr. Sheply."

"Yes. We're interested particularly in the ground apes. They give evidence of semi-human intelligence. We think there may be some possibility of domesticating them and using them about the plantation."

"I don't envy you the job," I said. "They're vicious scavengers. They'll eat anything and they travel in big enough packs so they'll tackle anything. Anybody that gets separated in the bush doesn't stand much of a chance. I'd as soon have them on my plantation as live cobras."

Sheply said, "Hmpf," from which

I gathered he'd run up against the same attitude in other planters.

I was about to tell him what they'd done at my place, and how we never went outside unless we were armed with an automatic scatter gun, when our amateur band struck up "Yankee Doodle," and the curtain went up to the accompaniment of enthusiastic clapping, whistles and stamping of feet.

The girls were sitting demurely in tiers at the back of the stage. There was a block at the front of the stage with steps leading up on it. Horne held up his hands for attention.

He explained that the girls themselves—almost without exception—had agreed to be auctioned off to the highest bidders and that immediately following the sale, there would be a mass wedding at which Captain Landers of the rocket ship would officiate.

The bidding was lively right from the start. One by one, the girls mounted the block. They seemed to vie with each other over the prices they brought. They giggled, blushed, ogled the men. There were three fights among the audience and once I thought the guards were going to need tear gas in order to quell an incipient riot.

**THEY** HAD disposed of about a dozen of the girls at perfectly outrageous prices, when Gloria Campbell was led to the block. The black haired girl mounted the step, squared her shoulders, set her jaw.

"I don't approve of this!" she said, before Horne could get a word in. "I won't be knocked down to the highest bidder!"

Horne said patiently, "We went over this last night, Miss Campbell. The girls voted overwhelmingly in favor of the auction. You'll have to abide by the decision of the major-

ity."

"I won't," she said, "I won't! I won't marry a man I don't love." She shuddered. "It's horrible!"

A ripple of laughter spread through the audience. It's pretty generally accepted that love is a disruptive element in marriage, and I don't know anyone who would take such a risk. The family is the social, economic and biological foundation of society. Only a confirmed romantic would base anything so important on an utterly irrational emotion like love.

"You knew when you signed up," Horne told her accusingly, "that you were being sent over as the wife of some colonist."

"Yes, but I thought I would have a choice," she said. "I thought I would have time to look around and decide."

Horne was beginning to get angry.

"Miss Campbell," he said, "you signed a contract to come to Venus as the wife of a colonist. There were no provisions in that contract that allowed you any choice among the men. The company has gone to enormous expense to bring you here, but in spite of that, I'll allow you to break your contract provided you pay back what the company has spent on you."

"You know perfectly well I haven't any money!" she said bitterly.

Horne shrugged. "Then," he said, "I'm afraid you leave me no alternative." He took off his spectacles, wiped them savagely. "Really, Miss Campbell, we can't make an exception in your favor. It wouldn't be fair to the other girls."

The black haired girl had her back up. I could see that. She surveyed the sea of amused faces with a furious sweep of her eyes, then said very distinctly:

"The man who buys me will regret it! That's a promise!"

Horne's jaws snapped together with

a click. He turned his back on her.

"What am I offered?"

To my surprise, Oliver Potter leaped to his feet.

"Five thousand!" he shouted.

The girls had been going for around four thousand—almost twice their passage money.

Gloria Campbell gave Potter a contemptuous stare.

"You're throwing your money away!" she said.

He laughed. "I'll tame you," he said.

Somebody else yelled, "Six thousand." The bidding went up by leaps and bounds after that. But it was Potter who finally carried her off triumphantly for nine thousand dollars of company money.

I lost interest in the sale after that and wandered outside, but I came back in time for the ceremony.

The lucky bidders were standing beside their purchases on stage, facing the audience. Captain Landers of the *Comet* was on the auction block, reading the marriage ceremony the couples answering all together like catechism. Only when he came to the part where he asked the girls if they took these men as their lawful wedded husbands, Gloria Campbell said very clearly:

"I don't!"

Everybody laughed. The company clerk, who was recording the proceedings, ignored it pointedly, and Captain Landers didn't even pause. Finally, he came to the part where he said, "I now pronounce you man and wife." Then he corrected himself and said, "men and wives." But that sounded sort of promiscuous, as if all the women were wives of all the men. "Damn it!" he said. "You're married!"

There was a roar of applause and yelling and whistling. And then another big celebration that lasted al-

most till night, when the fortunate bidders carried their brides out to their crawlers and departed for their separate plantations.

I caught sight of Gloria Campbell when Oliver was taking her out to his vehicle. She looked grim as death.

One of the men pounded me enthusiastically on the back.

"That lucky dog!" he said, pointing at Oliver behind the wheel of his crawler with Gloria sitting stiffly beside him. "How'd you like to be taking something like that home, Dan?"

"I would and I wouldn't," I said.

That was only a half truth. But nine thousand dollars! Even if she'd been twins that was out of all reason.

THE NEXT day I was disking the north field, getting it ready to put in a fresh crop, when Feldcamp, one of Oliver's bound men, came over to borrow my monkey traps. He said the apes had been getting into one of their fields and they didn't have enough traps to protect it.

I told him they were in the curing barn and to help himself, and asked how the new bridegroom was making out.

Feldcamp grinned sourly.

"Oliver came down this morning with his face scratched and a black eye. He's got the girl locked in the room and she's gone on a hunger strike. I never saw a surlier bridegroom."

He went off chuckling, but it bothered me. I thought I might pay Oliver a visit to see that the girl wasn't being mistreated. Not that there was anything that I could do. And besides, Oliver wasn't the kind of man who'd appreciate anyone meddling in his affairs. The only thing I'd accomplish would be to make it harder for the girl.

I walked to town again that afternoon to see about cuttings. Beri's our

principal crop, a root crop native to Venus, that looks something like sweet potatoes. We sell them to the company which owns the refinery where the crystals are extracted.

In spite of the demand, it didn't pay to ship the roots to Earth. Our economy operated something like the mountaineers' who raised corn. It cost him more than the corn was worth just to haul it out; so he set up a still and turned it into good corn liquor, which decreased the bulk and added value and made the whole business profitable.

These crystals were the basis of a drug that had revolutionized medicine. It opened the subconscious to investigation, and it was being learned rapidly that almost all our ills stem from the subconscious—even old age.

When I finally got to town, I learned that the scientific expedition under T. Coles Sheply, had left for the bush. They never were heard from again so I suppose their experiments in domesticating the ground apes weren't very successful.

AT THE administration building I found the company's chief clerk and Turner, the credit manager. They shook hands and Nelson said:

"Have you heard about Bently and Stacey?"

They were two planters who lived to the west of town. They'd both bought girls yesterday. I shook my head.

"They were in this morning to swap wives," the clerk said. "I guess the girls will find the men they want sooner or later." He chuckled to himself.

"What did you do about it?" I asked.

"Let them swap. What the hell, the company wants to keep everybody happy."

"But they were married."



"The records haven't been sent back to Earth," Nelson said. "I just changed the names around. What difference does it make?"

"None, I suppose," I said dubiously, "though it does seem a little irregular." Then I asked Turner about cuttings and he gave me an order to draw on Oliver Potter for what I needed.

I was about to leave when a crawler roared up the street and lunged to a stop in front of the administration building. Through the window, I saw Oliver Potter leap from the vehicle and stalk inside.

He burst in on us in a fury, an inch-long cut in his scalp from which blood was still oozing.

"I want my money back!" he said savagely, while we all stared at him in astonishment. "I've been defrauded!"

"What are you talking about?" Turner, the credit man, said. "You'd better go over to the infirmary and have that cut taken care of."

"I don't move an inch until I get my money back!" Potter raged and slammed his fist on the desk. "That girl knocked me unconscious with a chair leg and ran off. You've palmed off a false bill of goods on me, and by God, you're going to make it right."

"But Oliver you're legally married," Nelson put in. "You're responsible—"

"Annul it!" Potter shouted. "That was no marriage. It's never been consummated, and it never will be! I want my money back."

"Did you say she's run off!" I asked. "Where? Where could she go?"

"Into the bush!" he snapped.

We couldn't have been anymore stunned if we'd been hit with the chair instead of Oliver. It was suicide to go into the bush alone and unarmed. The girl didn't stand a chance. My stomach felt as if someone had

kicked me in it.

Nelson got to his feet, his face white. "I can annul the marriage," he said, "but you'll have to see Horne about the money. I don't think there'll be any trouble. I'm going to turn out the guards. Maybe we can get to her before the apes. When did she leave, Potter?"

"About two hours ago," he said, partially mollified. "I don't know what direction she took. I was unconscious and neither of the men saw her."

"We'll get the dogs," Nelson said and hurried out.

There were a couple of other men in the office and we all went with Potter to Horne's cottage. He was just sitting down to dinner when we tramped across the veranda. He came out to meet us and listened without interruption to Oliver's complaint.

"That's bad," he said when Oliver had finished. "Of course, you'll get your money back. But I don't know what we'll do with the girl even if we find her alive. She'll be a dead loss to the company."

"Dead is right," somebody said unfeelingly.

"Horne," I said suddenly, "I'll give you fifty dollars for her right this minute, dead or alive."

He gave me a startled look. Then his face reddened. "Fifty dollars!" he said. "Are you crazy? Her passage alone cost the company two thousand dollars—"

"Yes," I interrupted, "and there's not one chance in two thousand that she's still living."

That jolted him. After a second he said, "You mean that you're willing to gamble fifty dollars on the possibility that she's found."

I said, "That's right."

"It's a deal," he said.

Down the street I could hear the dogs yelping eagerly as they were be-

ing loaded into a crawler. There was a clean silvery call from the bugle at the barracks and the fire siren turned loose in a screaming wail that carried for miles.

"You heard him!" I told the men. "You're my witnesses!" And I wheeled and sprinted for the crawler.

THE VENUSIAN bush isn't like anything on Earth that I've ever heard of. The trees are low, stunted and spiny with scales instead of bark. They don't have any leaves. The ground underfoot is hard, bare and powder-gray with dust. The perpetual cloud ceiling makes it look like it always is about to rain, only it never does. Or scarcely ever anyway.

The dogs were having a tough time following the girl's tracks. I don't suppose they could have followed them at all except that they were so fresh. It was almost night when we found where a band of apes had turned in on her trail.

By the tracks, there must have been three or four hundred of them. Not a tribe which numbers generally several thousand, but a band of young males. The old men apes run off the young males who herd together until they find females and rejoin the tribe. We really gave up hope then of finding the girl alive.

We kept on, though, even after nightfall and there's nothing so black as night on Venus. The only thing that gave us any hope was the fact that her tracks kept on. She couldn't be far ahead.

Suddenly, the dogs began to whine.

"Apes!" the sergeant in charge of them said. He swept his light around. But we couldn't see anything except the grotesque twisted arms of the trees.

My hands were slick with sweat from holding the automatic riot gun which I'd picked up at my place.

While daylight lasted, we'd been spread out, but we were huddled together now.

Nelson, the chief clerk, and I were the only civilians along, but we could hear the clang of pans in the distance and the bursting reports of guns where the planters had turned out almost to a man to beat the bush in the hope of scaring off the apes. Here and there the clouds were rosy with the reflected glow of flares.

"Whenever the dogs act like that," the sergeant said again, "there's apes around. I wish they'd quit beatin' those goddam pans. I can't hear myself think."

"Shut up!" said Nelson. "Listen!"

Everybody stopped and tried to quit breathing. I opened my mouth and then I heard it—a low, muttering sound up ahead.

"That's the apes, all right!" said the sergeant. "They've got something treed!"

He lunged ahead, the light jerking in crazy swathes. I was right after him. I didn't feel the thorns ripping at my clothes. "They've got her!" It was the only thing I could think.

The sergeant came to a sudden stop and I could hear him swearing to himself. But I wasn't paying any attention; for there, full in the spot of light, was the girl.

She'd fought her way up into a low crotch in a tree despite the thorns. She was bleeding and her clothes were torn and she was staring into the light, her face starkly white with terror.

Around the base of the tree were hundreds of small, gray shapes. The ground apes looked something like baboons except that they were smaller and tailless and hairless. They could have gotten at the girl easily enough because they're just as much at home in the trees as on the ground. But I didn't try to figure out why they hadn't bothered her.

I raised my scatter gun and fired!

It was like a signal. The guards began to fire all at once. A regular hail of slugs swept the ground under the tree. I don't know how many we killed with that first blast. But the rest decamped. They seemed to fade into the brush.

I ran forward and helped the girl down.

"I'm not going back!" she said wildly. "I'd rather those little horrors got me." Then she collapsed. I'd never seen such unrealistic stubbornness, but that's your true romantic.

We had a stretcher along just in case and we put her on that. The sergeant set off the green flare to signal that we'd found her and that she was still alive.

Ed Cornell, the company doctor, met us at the edge of the bush. I told him to take her to my house. He gave me a funny look.

"She's mine," I said. "I bought her from Horne and she's not getting out of my sight."

"That's right," said the chief clerk.

"What about the records?" I asked.

"I'll change them," he said. "It'll be all right."

While Ed Cornell was dressing her scratches, the planters gathered outside the house. Nobody could understand why the apes hadn't bothered the girl.

When Cornell had finished, he gave her a hypodermic to keep her quiet.

I thanked him and said that it was a miracle the apes hadn't torn her limb from limb. I must have sounded pretty fervent, because Cornell snorted.

"Miracle!" he said. "That was a band of young males, wasn't it? And this girl is the first woman they've ever seen. You think for a minute they'd kill her?"

**M**Y HOUSE was one of those single-unit functional living ma-

chines which the men called a sty. It consisted of one large room with alcoves all around the walls housing cooking, bathing, sleeping and storage units. The whole thing was moulded of opaque plastic so that no windows were needed.

Since Gloria Campbell was asleep in the only bed, I spent the night in the curing barn. She was still asleep when I cooked breakfast the next morning. I didn't wake her because I figured she needed the rest and besides I wasn't too happy about what she might do when she did wake up.

It wasn't that I was afraid or anything, it was just that I hadn't figured out any plan of action exactly.

There isn't much hope for a confirmed romanticist. They're like alcoholics. You can't do anything with them; because the truth is, they don't want to be cured.

I couldn't keep from looking at her, though. Her hair was like a black stain on the pillow. Her face was thin, and there were faint circles under her closed eyes. The sheet had fallen away from her shoulders. I'd never seen such white skin. I decided I'd better get the hell out of there quick and go to work.

Feldcamp, Oliver's man, brought over the cuttings right after breakfast. Oliver had sent Gloria Campbell's things, too, and a note telling me I could use Feldcamp to help set out the cuttings. He didn't say a word about Gloria.

I asked Feldcamp how Oliver was, and he said, "Kind of sour," and obviously didn't want to pursue the subject. When we finished, I gave Feldcamp a couple of dollars to buy beer because I knew Oliver was pretty tight and never gave his men any pocket money if he could help it.

"You don't need to do that," Feldcamp said.

I said, "What's the matter, don't

you like beer?"

He grinned and put the money in his pocket. "How did the apes get into your fields?" he asked unexpectedly.

"The fence broke down," I said. "The main fuse burned out. I was in town and I didn't find it out until too late."

"That's queer," he said. "The same thing happened to me. Twice." He climbed back up in the crawler. "If I was you," he said, "I'd keep a pretty close eye on them fences."

I asked him what he meant, but he acted like he wished he hadn't said that much and drove on off.

When I went in the sty, I found Gloria awake and dressed and combing her hair. She put the comb down and stood up.

"Who are you?" she demanded, looking me straight in the eye.

"My name's Dan Rowan, Miss Campbell," I said. "How are you feeling?"

"Very well, thank you. Why was I brought here?" She didn't take her eyes off me a second.

"Why don't you sit down," I said, "while I fix dinner. I expect you're pretty confused and upset—"

"I want to know where I am!" she interrupted in a desperately calm voice, "and why I'm here!"

**I** DIDN'T say anything for a minute, and I could see her getting madder and more scared and her back stiffening.

"This is my plantation," I explained at length. "When you ran off into the bush, the company manager had to refund Potter's money. Everybody thought the apes had killed you. I took a chance and gave Horne fifty dollars for you, dead or alive."

"You did *what*?"

"Now don't get upset," I said. "It was just a speculation. I figured you

meant it when you said you wouldn't marry a man you didn't love. This way you can look around and take your time about deciding on someone. When you do, I'll get seven or eight thousand dollars for you from him. That's not a bad return on a fifty dollar investment."

Her eyes widened incredulously and she swallowed and sat down limply on the stool where she'd been combing her hair.

"You mean that you don't—"

"Hell, no!" I said hastily. "If you were to fall in love with me, that would ruin everything. I can't afford to throw away that much money."

"Don't worry!" she flared up. "There's no danger of me falling in love with anybody so—so mercenary! You're the last man I'd—"

I said, "There's no call to be unpleasant, Miss Campbell. Let's be rational. This way you'll have an opportunity to get to know the men and make your own selection. Isn't that what you wanted?"

She didn't say anything.

"Of course," I went on, "I stand to make a nice profit, but that won't interfere with you. I thought you'd be delighted with the idea."

"I never heard anything so cold blooded!" she said bitterly. "You mustn't have any feelings at all!"

"That's lucky for you," I said, "because there aren't many men here, Miss Campbell, who wouldn't take advantage of you even if they intended to sell you later."

Her mouth set, but I could see that she was close to tears. "What stops me from walking out on you this instant?"

I shook my head. "Where would you go? There aren't any hotels. You haven't any money anyway. I don't mean that you couldn't find plenty of men willing to take you in, but you said you didn't want that."

"I could work."

"What difference does that make?"

I said.

She looked so stricken that I couldn't help feeling sorry for her. But even fifty dollars was a lot of money to me. I told her to come eat. "If you get skinny," I said, "your market value will drop off."

She looked as if she'd like to hit me, but she sat down at the table and began to pick at the food. All during the meal she kept watching me, her gray eyes puzzled and suspicious.

When we'd finished, she began to clear the table. I said I was going out to inspect the fences.

"How will I get to know anybody if I stay out here?" she asked quietly as I was leaving.

I paused in the doorway.

"Don't worry about that," I said.

"We'll have plenty of company."

I MADE the rounds of the fences.

We call them fences, but they're only posts—one at each corner of a field. They're equipped with electronic eyes and any interruption of the beam sets off a charge that will burn a man to a cinder. Everything was in order. There were a few dead apes on the bush side of the plantation.

A heavy overload had blown the master fuse the first time, leaving the whole plantation defenseless. At least, that's what the company engineer from the atomic pile had said, but he'd seemed a little puzzled.

I set a few more traps where the apes had started to burrow under the fence, and spent the rest of the afternoon burning out the undergrowth which was trying to creep back from the bush. Feldcamp and I had planted two hundred acres in Beri which is about fifty acres more than one man ought to try to handle.

When I got back to the house that

evening, I saw three crawlers out front.

There were five men in the house. They were from neighboring plantations and greeted me effusively, though we never had been very friendly before. They said that they had dropped over to see how my wife was doing after her terrible experience in the bush.

I said that she needed rest.

Gloria gave me a quizzical look.

The men left, but not without inviting me warmly to return their call. Three of them hopefully offered to come over any time and lend me a hand with my work if I needed help. What with the apes having destroyed my last crop, they said, it was the only neighborly thing to do.

"Don't you like them?" asked Gloria, as their crawlers trundled away.

"They're all right."

"I thought they were nice," she said. "They weren't at all like I expected them to be. You're not mad, are you?"

"No. Why should I be mad?"

"I don't know," said Gloria; "but you seemed a little curt."

I grunted and went into the bath alcove and showered and dressed. I could hear Gloria singing as she went about getting supper. That's your romantic—up in the clouds one minute and down in the dumps the next. They're absolutely irresponsible where their emotions are concerned.

After supper we turned on the television and watched a new canned show from Earth. It was a documented historical narrative about the fight for population control and very dull. We turned it off half way through.

"Have you seen *The Derelict Asteroid*?" Gloria asked.

I shook my head.

"It was wonderful," she said, and went on to tell me about it. It was

one of those rip-roaring space operas that have been banned for years but still circulate under cover. Her gray eyes sparkled and her cheeks were flushed with animation and she looked about ten times prettier than any girl had a right to be. Her frank enjoyment of such trash shocked me a little.

"Gloria," I asked, when she'd finished, "why did you come to Venus?"

She sobered instantly and her eyes dropped.

"It's hard to put into words," she said finally. "It—it's so stuffy on Earth. When you want to get married, you have to go to the Genetics Bureau and they check your ancestry and health and I don't know what all. And then you're classified and you have to pick a husband in your own classification."

"You've been to the Bureau?"

She bit her lip. "I was rejected," she said candidly.

It gave me a shock. I suppose I must have looked pretty startled, because she giggled.

"Don't be alarmed," she said. "I had a crush on an older man. He didn't even know I was alive, but I went to the Bureau to see if we were in the same classification. They rejected me as emotionally immature."

She gave me a rebellious look. "What I'd like to know," she said, "is how do they expect a person to mature without experience."

"If you mean what I think you mean," I said drily, "it shouldn't be hard to get," and I went to the wall and pulled out the bed.

Her eyes got as big around as saucers. She ducked behind the table, keeping it between us.

"Dan!" she cried in panic. "Oh, my heavens, why don't I learn to keep my mouth shut? Dan, if you—"

But I was already at the door. "It's

late and I've got a hard day ahead of me tomorrow," I said, and I couldn't keep from grinning. "I'll sleep in the barn until we can get another cell for the unit."

She looked suddenly foolish, then her jaws clicked together and I could see her getting mad.

"You deliberately—" she began.

"Maybe that'll be the first lesson," I said, "not to jump to conclusions."

I shut the door gently behind myself.

WHEN I'D told Gloria that we'd have plenty of company, I'd been a better prophet than I'd counted on. I couldn't go into the house without stumbling over somebody. Ed Norstrum, who's just a kid and made the crossing at the last conjunction, was over more than anybody else. But they all came. Even Horne, the company superintendent.

The way Gloria played up to them was irritating. Not that I minded, because it was necessary. But I couldn't help being disgusted at the way grown men made such damned fools of themselves. I can't say that I'd had any luck disillusioning Gloria either, except possibly with me.

She told me once that if she thought life was as ugly as I claimed it was, she'd curl up and die.

She'd been there a little over three weeks, when I came in from the fields one evening, tired and sweaty, and found Ed Norstrum and Wilson. The men took one look at my face and departed.

After they'd cleared out, Gloria regarded me soberly.

"Dan," she said, "how do you expect me to find anybody, if you run every likely man off the place?"

"I don't run them off," I said, "but I wish to hell you'd narrow down the field. I can't move without stumbling



over some calf-eyed idiot."

"Ed Norstrum's a nice boy," she said thoughtfully. "I like Ed."

"Boy? What do you want with a boy?"

"Well," she said, "what about Wilson?"

"Wilson hasn't the money!"

An amused expression flickered across her face. "Whom," she asked, "would you suggest?"

I suppose I gave her a pretty sour look. "It's time to get dressed," I said.

Another rocket ship had arrived from Earth with supplies, which was always the signal for a holiday. The men knocked off work on the plantations and flocked into town. This was to be a special occasion, too, because the wives had organized a club and were planning some amateur theatricals, and the try-outs were scheduled for tonight.

"No, I mean it," Gloria insisted. "You've been wonderful, Dan. I've just begun to realize how nice you have been. But I can't keep on this way without giving anything in return. It isn't fair."

I said, "Nonsense."

"No. Food's expensive. You're running deeper in debt every day, and if I stay much longer, I'll eat up all the profit you expect to make on me, and you can't afford that."

I looked at her sharply, but her face was blank. Too blank.

"There's no rush," I said.

She shook her head. "I'd feel better about it if I could help. Isn't there anything on the plantation I can do, Dan? In the old days wives on the frontier worked out in the fields beside their men. This is a frontier."

I don't know why her offer should have pleased me so much. I could use help, but it wasn't only that. I said, "We'll see. Now you'd better start dressing or we'll be late."

WE HAD a lot of fun in town. We had dinner at the Center, then shopped in the company store. I bought Gloria a new outfit that was the latest style from Earth. My credit was almost exhausted, but it was important to keep Gloria in a happy frame of mind. Nobody wants a droopy wife. Besides, it never hurts to display wares to the best advantage.

We ran into Turner later and he asked me to stop in at the credit office before I left town.

I left Gloria at the Center and went over to see what he wanted.

"Dan," he said, frowning at me dubiously, "I don't like to say anything, but you're getting in pretty deep."

"If I make this crop, I can handle it," I said, "and if I don't, I'm sunk anyway."

He shrugged, "You know your own business," he said, "but I can't okay anything else except essential expenditures."

That night Gloria was chosen for the lead in the amateur musical that the wives had decided to put on. I'd never seen her so happy. I couldn't remember when I'd felt so good either. It was morning before we got back.

I stopped the crawler in front of the door and said, "Home." It was the first time I'd ever thought of the plantation as home.

Gloria smiled sleepily.

I started to climb down when I noticed that something was moving in the fields beyond the barn. I stiffened and it was as if somebody had run an icicle down my spine.

Gloria cried, "Dan! What is it?"

I said, "Look."

There wasn't much light yet and in the pale, indistinct gray dawn, the fields themselves seemed to shudder. I snatched the riot gun from its scab-

bard, then I stopped. It was too late. That was a whole tribe. They wouldn't have left a single plant.

"Get in the house," I told Gloria. "It's dangerous out here."

We went inside and locked the door. I looked at the master fuse. It was blown again. All the power was off. I couldn't even call town on the televisior. I told Gloria to keep the door shut, that I was going after the guards.

"There are too many apes out there for me to handle alone," I said.

Her eyes were big and frightened.

"This will ruin you, won't it?"

"I'm afraid so," I admitted. I was still numb from the shock. "There's such a demand for labor that they couldn't afford to carry me any longer if they wanted to. There'd be too much pressure from the other planters. I'll have to work it out. It's in the contract."

**I** GOT in the crawler, told her again to lock the door and drove away.

When I got back with the guards, the apes were gone. They'd cleaned the fields, digging up the young Beri plants and eating them roots and all.

I went in the house and it had a funny, empty feeling. It gave me such a scare that I had to sit down, because I thought the apes might have carried off Gloria. Then I saw the note. It was lying on the table with the salt shaker on it. I read it in a daze. Gloria had written:

"Dan:

"I guess you're right and we all have to face the facts" sooner or later. I've decided to go back to Oliver Potter, because it seems the most sensible thing to do. Besides, if he's still willing to pay nine thousand dollars for me—and I'll do my best to persuade him to do it—you can pay off

your debts and start all over again. Don't worry about me, I'll be all right.

Gloria"

Gloria gone! That was bad enough, but the thought of Potter getting her was worse. I'd almost rather the apes had her. Crumbling the note, I flung it savagely on the floor. The picture of them together was more than I could stand.

I jumped to my feet, knocking the chair over with a crash. I didn't pick it up, but began to look for my riot gun.

It was on the desk where I'd put it when I'd come inside and found Gloria gone. I snatched it up, ran out to the crawler.

The company engineer was just arriving to begin his investigation. I yelled at him to go ahead and drove off as fast as the crawler would lumber.

Somebody bellowed and jumped aside into the ditch. It was one of the guards. I could see him shaking his fist at me as I roared past. Then I was out on the open road.

I was at Potter's place almost before I realized it. I swung the crawler into his front yard, ground to a stop in a cloud of dust, leaped to the ground. I was holding the riot gun in my hand like a pistol; it didn't seem to have any more weight than a pistol.

There wasn't anyone in sight. The men must be working in the fields, I thought and that was fine, because it left Oliver and me alone.

His house was a big three-unit affair. I started for the door. If it was locked, I'd smash it in with the crawler.

Before I could reach it, though, the door opened. Oliver stepped out on the stoop. He was holding a riot gun high across his chest as if he

were in the bush hunting apes. His face was dead white and his eyes were hard as little green marbles.

"What do you want?" he demanded in a hoarse voice that didn't sound like Oliver at all.

I said, "You know damn well what I want!"

His face looked suddenly pinched. I could see the sweat standing out on his forehead. He said, "You're crazy. You can't get away with it. Get out of here, Rowan!"

I looked at him. If he got in my way, I'd kill him because I was going to bring Gloria out of there if I had to drag her over his dead body. I started for the door. I hoped he'd try to stop me.

His eyes suddenly showed the whites all around. "Damn you, Rowan!" he said in a high voice, thrusting the riot gun at me like a spear. He was going to shoot.

I pulled the trigger without aiming. I just pointed the gun at him and fired. I don't know which of us shot first. A puff of smoke billowed from the muzzle of his gun but I didn't feel anything.

He stumbled back against the wall of his house. His head bowed with a snap. He began to fold up, but the next charge smashed him to the ground.

I quit pulling the trigger. I didn't know how many times I'd fired. He was dead all right. I leaped over his body, ran through the house calling Gloria.

She wasn't there.

**I** DIDN'T know what to think, but a dozen things occurred to me that could have happened—none of them pleasant. I sat down, because I felt shaky, and the gun, which I scarcely had been aware of before, seemed to weigh a ton.

Then it hit me. I'd killed Potter

and he hadn't been hiding Gloria after all. Not that I cared; it was self-defense in a way. But why the hell had he been so edgy?

The wail of a siren penetrated faintly the empty house. It had a thinner sound than the stationary siren atop the administration building in town, so I knew it must be one of the speedy half-tracks that the company guards used.

I had to find Gloria. I didn't know where to look but I couldn't sit still. I had to move around, do something. I went on through the house and out the back door.

The siren was louder in the open, swelling gradually. It was headed this way.

I looked at the flat, empty fields, the prosperous cluster of barns, then I went rigid. A head was sticking around the edge of the curing barn door, regarding me with wide, frightened eyes.

"Gloria!" I called.

She edged out gingerly, a slight figure in blue shorts and a man's white shirt. She came toward me, half fearfully.

"Dan, what happened? I heard shots. I've been scared to death."

The siren was getting louder all the time. "Where have you been?" I said. "Why did you run out on me?"

"But Dan, you needed the money. I thought that was what you wanted, only at the last moment my nerve ran out."

Her chin looked like it might begin to quiver any instant. I pulled her against me and she buried her face on my shoulder.

"I tried so hard to be rational," she said brokenly. "But I couldn't bring myself to do it. I hid in the barn trying to get up the courage to go through with it."

I said, "You're my wife. You're not for sale. Not at any price."

She leaned back, tipping up her face to stare at me soberly.

"Dan," she said, "I'm glad—I'm so happy." Her voice choked up, and she scrubbed at her eyes. "I didn't think you'd ever wake up."

I kissed her. And that's what we were doing when the half-track rolled up in front of the house.

"Gloria," I said, because I couldn't put it off any longer, "you wait here. Potter's dead. I killed him."

"Was it," she began finally, "was it because of me; Dan?"

"It's not your fault, if that's what you mean. I thought he was hiding you. He shot first, maybe."

"But Dan, what will they do to you?"

"I don't know," I said. "That's what I'm going to find out."

She lifted her chin. "We'll go out together. Nothing matters if we can stay together."

**THE GUARDS** had piled out when we came around the corner. I was surprised to see Feldcamp and the other contract man, whose papers Oliver had bought, sitting stiffly in the half-track. Horne, the company superintendent, was just getting to the ground.

They discovered us and Horne started to say something, then his eyes lit on Oliver's body sprawled on the stoop, and the words sort of dried up in his throat.

There were four guards. They clustered around the body.

"He's riddled. He looks like a sieve," one of them said. They picked up his riot gun and examined it to see if it had been fired.

Horne looked at me. "You killed him!"

"He shot first," I said in what I tried to make a convincing voice. "It was self-defense."

"I don't care what it was. You had

no business to go after him." Horne was badly rattled and hopping mad. "Of all the insane, irrational stunts! He ruined Feldcamp and Waters the same way, but they didn't grab a gun and go on the warpath. Somebody ought to examine your head."

I was utterly confused and had just enough sense left not to say anything.

"We were on our way out to arrest him," Horne said bitterly.

"You were going to arrest Oliver?"

"Who else?" he demanded in a scathing voice. "We had him this time. Feldcamp and Waters have been taking turns watching every move Oliver made."

Feldcamp said ruefully, "We knew damn well Oliver had let the apes into our fields. He did it so he could buy up our land and us with it."

By that time it had begun to penetrate that they all figured I had gone after Oliver because he had ruined me. I thought it best to let it ride.

"But I couldn't prove anything," I said lamely. I felt Gloria's fingers tighten convulsively around my arm.

"Neither could we," Feldcamp said. "So we decided to watch him. We figured anybody as greedy as Oliver would try it again. Last night I followed him over to your place and saw him take out the master fuse and put an old burned out one in its place. There wasn't any waw on God's green Earth—or Venus either—he could've been caught if he hadn't been seen doing it."

I realized suddenly that Feldcamp must have been trying to tip me off that day in the fields. I wanted to grin, maybe it was just nervous relief, but I had a hell of a time keeping my face straight.

"What about me?" I asked.

Horne glared. "You say he shot first?" he asked skeptically.

"I can vouch for that, Mr. Horne," Gloria said, smiling up at him sweet-

ly. "Dan just wanted to ask him where he'd been yesterday. But Oliver yelled something and fired. He had a guilty conscience, I guess. I was so scared I flopped down in the crawler. Dan thought I'd been hit."

Somewhat mollified, Horne wiped the sweat out of his eyes. "There won't be any charges brought against him," he told Gloria.

Feldcamp wanted to know about collecting damages from Potter's estate, and Horne assured us we'd get back everything we'd lost plus interest.

That's what I was waiting to hear, and I asked Horne if it would be all right for Gloria and me to go home. "We've had a pretty rough time," I said. He said to go on.

On the way back Gloria kept glancing at me with a fondly amused expression. That's the nearest I could come to describing it. And when we reached the plantation, I pulled up before the house, but didn't get down.

"All right," I said, "so I haven't been acting very rational."

"I didn't say so," she said. "And besides, what's so irrational about trying to get as much fun as possible out of life?"

"Not a thing," I said. "In fact. I've been planning to investigate the field of romanticism. Sort of a private research program."

And lifting her out of the crawler, I carried her across the threshold in the best romantic tradition.

## ARISTOCRACY of BRAINS?

by

MERRITT LYNN

SCIENCE-FICTION writers basically are evaluators of the future. They try to picture events and things as they will be, and while their roots are primarily scientific, they are even more concerned with the future *history* of science. The best way to prophesy—as most prophets have discovered—is to examine the past. So science-fiction writers extrapolate their future worlds on the basis of what they see in the past.

Undoubtedly many discerning readers have noted a trend, a chain that filters through so much s-f writing, a trend which has recently come to our attention and which seems worthy of discussion. It is the frequent division of people in the stories into two classes—an aristocracy of the intellectuals and the workers!

Actually, if you examine the course of history this doesn't seem to be an unreasonable prediction to make for the course of future events. With the coming of the Industrial Revolution, universal education, the replacement of muscles by machines, and the more recent developments of automaticity, we see a sort of breakdown of society into those who engineer things and those who use things. The social aristocracy based on wealth and prestige is gone or going fast—but is this new development healthy?

As a concrete example of what we mean, consider the proposal to automatically defer college students from military service. Instantly college presidents clamped down on this idea, said that such a false

aristocracy should not be permitted to develop. You can bring many other examples to mind.

The point of the discussion, however, is not so much present conditions though it is necessary to mention them, but rather to notice that too often s-f writers have concluded that the intellectual aristocracy is the natural order of things. These writers label their worlds slightly differently, but their "kings" and "emperors", their "commonwealths of galaxies" their "galactic empires" smack strangely of all too familiar unpleasant concepts.

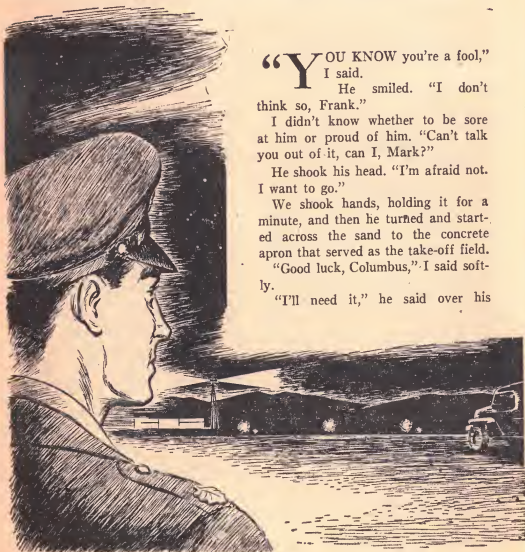
Because a man through accident of birth is gifted with a superb mind (the mutants and super-men of so many stories), are we to conclude the rest of the world is to be their chattel? Democracy implies equality—not in the common leveling sense but in the "dignity of Man" sense. Unfortunately some s-f writers have been so carried away by their grandiose concepts of mutants and super-men that they lose sight of the real aim and goal of the humanist, the true believer in Man's inviolable dignity.

Fortunately, many writers seem to have consciously recognized this, and their mythical worlds correspond more nearly, without any tacit approval of superiority of mind, to our own reasonable views of general quality for all regardless of intellectual accomplishment. It is truly fantastic in a way that such a problem should even have to come up. But science fiction leads into the strangest worlds!

# "GOOD LUCK, COLUMBUS!"

*By Frank Robinson*

**They told Mark that only a fool would ride that rocket. But he was young enough to know that wisdom doesn't always make sense**



"**Y**OU KNOW you're a fool," I said.

He smiled. "I don't think so, Frank."

I didn't know whether to be sore at him or proud of him. "Can't talk you out of it, can I, Mark?"

He shook his head. "I'm afraid not. I want to go."

We shook hands, holding it for a minute, and then he turned and started across the sand to the concrete apron that served as the take-off field.

"Good luck, Columbus," I said softly.

"I'll need it," he said over his

Watching him walk slowly toward the rocket, I wondered if I'd ever see Mark again





shoulder. I watched him as he trudged across the sand, a thin shadowy figure in the moonlight. He's scared, I thought. Scared clean through. One of the few who would have brains enough to be scared.

He grew smaller in the distance and then he was on the apron, a tiny speck pinpointed in the glare of the spotlights that were focussed on the rocket. He threaded his way through the knots of mechanics and equipment trucks clustered around the rocket's base, and a moment later he was a fly on the ship's side, climbing the ladder to the open entrance port. After that, there was nothing but the silent silver cylinder gleaming in its launching scaffold.

"Good luck," I said again to myself.

I looked at my watch. It was ten o'clock, time to retrace the steps that Mark and I had made half an hour before when we had taken the short walk into the desert.

On my way back to the observation bunker, I couldn't help but think that it was a good night for the take-off. The desert air was sharp and thin, the kind that forces you to breathe deep, while overhead the friendly stars blazed away. The moon was full and I thought I could make out Mare Imbrium and Mare Tranquillatis, two of the dead seas, but I wasn't sure. Well, I could leave that to Mark, I thought. He'd get a closer look than I would probably ever have.

I shivered a little and hunched down in my jacket, suddenly aware of the desert chill.

It was going to be a good night for it. A damn good night.

SERGEANT RODNEY wiped a sweaty forehead with an equally sweaty hand and greeted me like I was a long lost relative. "It's all yours, Major," he said. He raised his voice

to the pressing group of reporters. "If you'll please be quiet, Major Lyons will answer what questions he can!"

I felt uneasy and wished the hell the reporters had never shown up. My observation bunker was just off the apron, a small concrete blockhouse packed with radio and radar equipment—most of which was delicate and some of which could easily be knocked out of adjustment if somebody brushed against it. Ordinarily it held about six comfortably, and right now there must have been twice that number jammed in.

A thin looking guy with a crumpled hat and thick glasses had his hand up. "Just what part in this flight do you play, Major?" He gestured around at the radio equipment. "What's the set-up on all the apparatus?"

"Public Relations can brief you in on the whole story," I said. "In short, we'll try to keep radio and radar contact with the ship all the way to the moon and back."

"Will you be able to talk to the pilot all the way? You know, find out how he thinks and feels about the trip?" A heavy-set woman with a trace of gush in her voice had the floor.

I felt tired and my answer was curt. "We intend to record the pilot's impressions and sensations during the entire trip. The information will be valuable for any future attempts."

"How about some data on the pilot, Major? Understand he's not an army man. You leaving the piloting to the slide-rule jockeys?" I could feel the group tighten up.

"Public Relations can give you the personal history of the pilot," I said. "Since you don't have much time left, I'd like to—"

The field's public address system broke it up: "IT IS NOW TEN MINUTES TO TAKE-OFF."

ALL UNAUTHORIZED PERSONNEL WILL CLEAR THE FIELD AND REPORT TO THE OBSERVATION BUNKERS. IT IS NOW TEN MINUTES TO..."

The reporters battled their way out and I was left alone with the sergeant and the guy with the crumpled hat and the thick glasses. He held out his hand.

"Name's Bolles," he said. "AP wire. They elected me to cover it in here."

"Okay," I grunted. "Don't touch the equipment and don't bother the sergeant or myself. We'll do our best to give you information when we can. Cooperate with us and we'll cooperate with you. You'll have to write long-hand since typing might interfere with any messages we get or send. Got it?"

He nodded agreement and settled himself in a canvas camp chair.

I switched on the little TV set and watched the picture of the apron and the rocket develop. The apron was almost deserted now, the ship standing alone in the glitter of the lights.

I tuned up the transmitter and made contact.

"Observation bunker calling rocket, observation bunker calling rocket. Come in please. Come in please. Over."

I flipped the receiver switch and heard Mark's voice. It sounded rather tinny over the radio and most of the inflection was lost.

"Roger, Frank. You're coming in perfectly. What's your time?"

"10:53. How's your chronometer?"

"On the button, no deviation at all. I'll call you back in a minute. Have to make a last minute check of the instrument panel."

I SETTLED back in the chair and took the cigarette Rodney offered. Bolles opened his mouth to ask a question and then thought better of

it. Apparently whatever it was, it could wait. My head ached and I felt like I was drowning in the humid heat of the bunker. The damn transmitter tubes threw it off like electric stoves. Already my shirt was so sweaty it stuck to me like adhesive tape.

In sixty seconds, Mark was back on the air.

"Still there, Frank? Checked the control panel and the Geiger counters. Got a faint burp from them just a moment ago."

"I don't think it's stray radiation," I said. "There's three feet of lead between your cabin and the pile. We took all the precautions..."

"I know. I didn't say it was. Probably cosmic rays. Only 120 seconds left, Frank. I think I better get in the cocoon. Try contact again in ten minutes."

There was the squeal of a tube and then Mark's end of the line was dead.

My mouth felt funny, and I spit out the remains of the cigarette. I had tried chewing it like a stick of gum.

"He's getting into the cocoon," I said, answering Bolles' unasked question. "That's slang for a spring-supported cot—keeps him in one piece during the acceleration period." Bolles scribbled it down in his notebook, one of those green-edged kind like high school girls use in their short-hand courses.

Outside, the public address system was bellowing again.

"ATTENTION ALL BUNKERS. SIXTY SECONDS TO TAKE-OFF. SIXTY SECONDS TO TAKE-OFF."

Pause.

"FIFTY SECONDS TO TAKE-OFF. SCAFFOLD AWAY!"

In the TV screen, the huge scaffolding rolled away, leaving the rocket supported on its tripod-like fins.

"FORTY SECONDS TO TAKE-OFF."

Pause.

"THIRTY."

Rodney sat in the corner, his eyes glued on the screen. Bolles played with his pencil a bit and then resignedly stuck it in his pocket. It was a little too much to write about history the precise moment it was happening.

I tried to imagine how Mark felt, sitting on top of a bomb and about to set it off. There was nothing to compare it to, it was simply....

"TEN."

"NINE."

"EIGHT."

My eyes were watching the screen when suddenly flame spurted out of the rear of the rocket. It hung there for a moment, supported on a pillar of fire; then the television camera angled sharply back and the rocket was a brief flare against the star-lit sky. The flare dwindled and then abruptly I couldn't distinguish it from the myriads of stars.

**I** SAT there silently, thinking of Mark wrapped in the acceleration cot in the tiny cabin. The night would be racing giddily by and a huge hand would be crushing him into the cot, smothering his breathing and making his limbs feel like lead.

"Can I ask some questions now?" Bolles leaned forward in his chair, his pad and pencil ready.

"Yes—certainly."

"As I understand it, the rocket isn't going to land on the moon."

"That's right. It's to go around it and then head back. Landing on the moon and taking off from there will be the purpose of the next trip."

Bolles scratched away.

"How long do you figure it will take?"

"The first leg should take twenty-four hours. By tomorrow night this time, he should be around the moon and on his way back."

"The rocket was publicized as an

atomic rocket and yet it had a liquid fuel launching. How come?"

"That one's easy," I said. "The liquid fuel section will take it up about a thousand miles and then that section will drop off before the atomic drive comes on. The exhaust from the drive is highly radioactive, so much so that if we had used it at the start we couldn't use this apron again—or even come within a mile of it, for that matter. By starting the drive a thousand miles up, the exhaust will be pretty widely dissipated through the atmosphere."

He finished it off and closed the book. "That's enough on the science angle for now." He pointed to a photograph by the transmitter. "This a picture of the pilot?"

"Why, yes," I said. "That was taken about two years ago, of course."

The picture was the kind you usually see in college annuals. A little too glossy and with all the character lines painted out by the retouch artist. He had on his graduation pin-stripe and his smile showed just the proper amount of teeth. I could almost hear the photographer telling him to say "cheese." He was even thinner in the photograph than he was now and his hair looked like it wasn't used to being combed. His eyes gave the lie to the artificial smile and were much too serious for the devil-may-care expression that all good pilots are supposed to have.

Bolles lit up a cigarette. "What kind of a guy is he, Major?"

"That's kind of hard to say," I answered. "I could give you a five-minute biography but that still wouldn't explain his character or how he acts or thinks. Average family, book worm in high school, won a scholarship to college. Studied like mad. Probably wouldn't know the difference between a basketball or a baseball or how many men there were

on a football team. When all the little kids in the neighborhood were dreaming of being cowboys or policemen, he was dreaming of being something they couldn't even pronounce—a physicist." I shrugged. "I don't think he'd make very good copy for you. He isn't a personality kid, he doesn't have the magnetism of a Lindbergh or a Corrigan. I really wish you wouldn't give him a build-up, Bolles. The public would make a hero of him and then be bitterly disappointed when he didn't live up to their expectations."

Bolles was still inspecting the photograph.

"You can get a recent photograph from the PR office, if you want one," I offered.

"Well, I don't know," Bolles said slowly. "If you don't mind, Major, I'd like to use this one."

I HAD just nodded assent when the radio crackled.

"Can you hear me, Frank? If you can, come in please, come in please..."

His voice sounded low and strained.

"All X, Mark, I hear you perfectly. Can you report on your physical condition?"

"Sick. Steady and unrelenting feeling of nausea. Like when you're going down in an elevator and it keeps falling faster and faster. I closed my eyes and that just made it worse. You feel like you're falling hundreds of miles back to earth. I feel messy right now. Had the dry heaves for awhile."

I felt rather sick myself. I wanted to ask him more but I had to have an instrument check first.

"What are your readings?"

"Altitude 5,280,000 feet—one thousand miles to you. The liquid fuel section just dropped off. Pressure in cabin, one atmosphere: pressure outside, nothing. Practically no gravity

pull since ship is in free fall. Slight pull because of ship itself but very slight. I'm rotating the ship a little so one side isn't always facing the sun—the rays are pretty fierce out here."

It was hard to realize I was talking to a man who was one thousand miles straight up and going further and faster every second.

Rodney had the wire recorder out, taking down everything Mark said.

"How's visual recording, Mark?"

"Good. I have the cameras going and the ports seem to work all right. Made the mistake of opening those on sunside at first and nearly fried in two seconds. Got a terrific sunburn in nothing flat.

"The view of the earth is breathtaking, Frank. At first you get the sensation of going up from it. It terrifies you to realize you're this high up. Now it seems like I'm not going up so much as out from. I can make out all of the western states and most of the rest of the country is drawing over the horizon now. Looks like a television set when you flip the off-switch and the picture shrinks in toward the middle. The whole country has come into view even while I'm talking. It's not nearly as clear as a map, you understand. Clouds hide a little of it and a lot of it seems blurry, like it was under water. I think I know why the astronomers are always complaining about the distortion of the atmosphere now. Some of the countries look like I'm seeing them through a Coney Island mirror."

"What's your chronometer reading?"

"Looks like it's stopped. What's your time?"

"Set it for 11:33," I said. I was a little worried. The chronometer was not important in itself. The point was, it shouldn't have stopped. Allowance had been made for the shock

of take-off so by all rights the time piece should still be running. If this could happen, then, of course, other things could too.

"How are you physically, Mark?"

A moment of silence.

*"Still sick. Pulse high, respiration high. Pulse about a hundred, incidentally. Not unusual, considering the tension. I've got a terrific headache of the migraine type. I have compensations, though. Getting about in the compartment is fun. There is no 'up' or 'down' or 'floor' or 'ceiling.' I can float in the center of the compartment, if I want, and move about by 'swimming' through the air. More fun than floating in the great Salt Lake.*

*"That's about it, Frank. I'll call you again in an hour or so. I have to change film in the cameras."*

"I won't go away," I said.

BOLLES was working around the washbowl in one end of the bunker.

"Care to coffee-up, Major?" he offered. "It'll be a long grind until tomorrow night."

"Thanks," I said. "I guess reporters have their good points at that."

Rodney and Bolles and I held the cracked china cups in our hands and spent the first minute just smelling the coffee. The door to the bunker was open and the inside had cooled off to a halfway livable temperature. What was happening was just beginning to affect us but we talked around the subject rather than directly about it.

Bolles cradled the photograph of Mark and inspected it appraisingly.

"He'll be a hero tomorrow. There won't be anything that the country won't do for him. Hell, there'll be paper parades in New York, personal interviews, magazine articles...."

"Don't forget the cereal endorsements and the 'I knew him when'

books by friends he probably doesn't even know he has."

Bolles looked at me curiously. "You sound like something's eating you, Major. Or just a cynic by nature?"

I shrugged. "It's just that I probably know the kid better than anybody else and I can't see him as tomorrow's hero. He's doing a job, a tough job, but to him it's just a job. It's something that's going to have to be done. Columbus never set out in his three wormy carracks just for the newspaper headlines and the huzzahs he'd get from Isabella when he returned. He went out to prove something. So did Mark."

"To prove what?" Bolles asked softly.

"I don't know if I can express it," I said. "He could be poetic about it but that's out of my line. He felt that a man shouldn't be bound to this one tiny planet. He wanted—well, he wanted to hold the stars in his hands."

A breeze swept in the open door and whirled the dust on the floor of the bunker. Outside, I could hear the slow grind of trucks carting away the remainder of the scaffolding and the shouted orders of the men working on it. In another hour the stars would be fading and we'd see the early desert dawn. Mark seemed very far away, in fancy as well as fact.

"I wonder what he's thinking," Bolles said slowly.

"I don't know," I said. "I don't know."

MARK ESTABLISHED contact again in the early morning.

*"Pressure normal. Cabin temperature up. It's been climbing half a degree per hour so far. Oxygen content normal. Cameras working all right, have six reels in the cans now. Not much more to do."*

Bolles shoved a piece of paper under my nose. He had written on it:



"Ask him how the moon looks."

"How's the moon, Mark?"

*"It's beautiful, Frank. It's the most beautiful sight I've ever seen. You can see Tycho and Copernicus and half a hundred of the smaller craters with the naked eye. It's bigger now, of course, it covers a fair-sized section of the sky. It's—well, gorgeous. Incidentally, Frank, I'm about 50,000 miles out. Right on schedule. I should be making the turn about nine P. M."*

"How do you feel?" I asked.

*"Still sick, but I'm not throwing up. The headache's gone away now. I feel kind of lazy, just floating in the cabin. I can catch half hour naps pretty easy—it's restful in that respect. There's something else, though."*

"What's up?"

*"I don't know. I—worry a lot and..."*

He stopped and I felt like my head was splitting.

*"I think I'm lonely, Frank. You know, no matter where you go on earth, there's always somebody within the next mile or so. People are gregarious, they like to stick together and talk. They like each other's company. But I'm here—fifty thousand miles out—and there's nobody else here. There's nobody around for fifty thousand miles. It's like being in a collapsed coal mine with a phone to the surface. If I couldn't talk to you..."*

"I'll be here," I said. "I'll be here until you land, Mark. I'll coffee up during the day and stick to the radio like a leech. You're not alone, Mark, just remember that. Any time you want to talk, just flip the switch. We'll be here. We'll be here all the time."

He said a little more and then signed off.

I ran my hand over my face and tried to brush the sweat off. I felt like I had run a mile or gone fifteen rounds.

"He's sick," I said to Bolles. "Nausea and a touch of claustrophobia. You know how it is when you're sick. Your courage runs down, you feel sorry for yourself, you feel deserted. Maybe it will pass for him, maybe it won't. Think how it must be out there, Bolles. The sun and the stars and a disembodied voice for company."

"I'm beginning to feel it," he said. "It scares me."

THE BASE began to wake up about six in the morning when the mail truck drove out from Roswell. They blew reveille at 6:30 and the cooks started banging around the milk cans outside the mess hall. Sleepy soldiers filed down the street for breakfast and stared curiously at the bunkers around the apron. The world was waking up.

Bolles disappeared for breakfast and came back lugging a tray of bacon and eggs. Right then I felt like pinning a medal on him. I had almost forgotten how hungry I was. He brought along a copy of the early morning paper and I read the accounts of the rocket. It was a small town local but they carried the wire service reports. The paper had been printed too soon to include any long article of the take-off but a brief bulletin covered the fact that the rocket had been fired at 11:00 P. M. Thursday. Most of the material was local color and a rehash of the public relations handout on Mark. The reporters had done a bang-up job on the latter, I could see the kids mobbing the department stores for junior-size chemistry sets and inexpensive Geiger counters.

Rodney caught about half an hour of shut-eye and offered to relieve me if I wanted to nap. I waved him off and stayed by the receiver. There was nothing to report all that morning and I figured Mark had dozed

off. It didn't matter too much as the ship was practically automatic as far as course went. A little before noon I got hold of some adhesive tape and taped the faces of my earphones; they had begun to cut my ears.

At noon Mark called in. His voice sounded flat and dull.

*"Pressure normal, atmosphere normal, oxygen content normal. Temperature up two degrees since early morning—your morning. Thermometer stands at 82. Too humid and stuffy in ship, otherwise comfort is maximum. Geiger counters reading too high. I think the lead shield leaks but it isn't dangerous yet. I'm 175,000 miles out and slowing for the turn. Should make it on schedule. Cameras working perfectly."*

"How do you feel?" I asked. "Have you eaten anything?"

*"Haven't felt like food, Frank. The thermos of orange juice was a good idea, though. Solid food's pretty hard to keep down."*

*"I don't feel too good otherwise, either. Feel dirty and need a shower. Sweat a lot but the sweat doesn't run off. It spreads over your skin and sticks to you. Sometimes I can shake the drops off but then they float around in the cabin."*

*"The earth is pretty small now, a beautiful little globe of blue, Frank. I look at it and think of you and the other guys in the bunker and feel lonely. You don't know what it's like, to be cooped up in this cabin and floating in empty space. It's like being cast adrift in the ocean in a bathtub. If we ever send another ship, Frank, it better be a two man affair."*

"Is there anything we can do, Mark?"

*"I don't think—well, yes, there is. Do you think you could read the morning paper to me? Not the world news or stories about the rocket but local stuff, the man-bites-dog type."*

We read the paper to him during the afternoon and then in the early evening we gave that up and made small talk. I think we covered just about everything. Nothing important and anything in particular. He was clinging to the radio now, afraid to turn it off and face the immensity of space alone. I was only a voice but right then I was the only moral support he had.

Bolles had filed four stories during the course of the day and was busy scribbling on his fifth at about eight that evening. I felt like I had known him and Rodney all my life. We even tried a three hand poker game going but none of us could follow the cards.

WITH THE coming of the turn, Mark had begun to show some improvement. He'd be cut off from us for about an hour when he was behind the moon but once that part was over, he'd be on his way home. It was the thought of that that would take him around it.

At eight fifty-five the turn was supposed to begin. He was to go into a tight orbit around the moon, a bare two hundred miles above its surface, and come shooting around the side like the end boy on a crack-the-whip team.

At nine-thirty, Colonel Johnson of rocket navigation barged into the bunker, his face white.

"What's wrong?" I asked.

"The operators in remote control say he hasn't started his turn yet. Have to check and see if he can do it on manual." He flipped the transmitter switch and I plugged in another set of earphones for myself.

"Hello, Mark, can you hear me?" Johnson asked.

*"All X, Colonel, what's the story?"*

"Listen to me very carefully, Mark, and do exactly as I say. The remote control operators say you haven't

started your curve yet. For some reason, apparently your automatic controls aren't working. You probably haven't noticed yet that your course hasn't changed but in another fifteen minutes you would. Now you have a set of manual controls in your cabin; they're on the left-hand side of the instrument panel. Do you see the group of white buttons marked 'sequence'? All right, now you press those buttons—not yet, when I tell you to—beginning with the left hand one and wait a full sixty seconds between each. They fire liquid fuel boosters on the ship's side. The sequence is arranged so they'll launch the ship into an orbital curve around the moon. Okay? Now repeat back to me what I told you so there'll be no mistake."

He did and Johnson told him to go ahead. I could feel the sweat drop off the end of my nose and splash on my shirt.

A minute later Johnson asked: "How's your course now? Did they work?"

The answer was slow in coming.

"No," Mark said. *"No, they didn't work. The take-off must have broken the connections between the firing chambers and the push-buttons."*

Johnson leaned back in his chair with a slow sigh. "I'm sorry, Mark," he said softly.

He took off his earphones and gave them to me.

"There's nothing I can do, Frank. I imagine you'll want to talk to him."

I sat with the earphones on for five minutes before I could think of anything to say.

"Hello, Mark. I..."

"I guess I won't make it, will I, Frank?"

"No," I said. "I guess you won't."

*"Would you mind staying around and talking to me, Frank? I'm lonely. Oh, God, I'm lonely!"*

"Sure, I'll stay," I said. "I'll stay as long as you like, Mark."

I talked to him all night about little things, about family life, and how much fun you have when you're a kid, and how the sun feels during the summertime.

He was beyond the moon now and going straight ahead. His voice grew dimmer and at last we had to switch to Morse to keep in touch with him. All the next morning we kept it up and then he started to die out at intervals. Rodney took and sent the code but I was at his shoulder all the time, listening to the impersonal tap of the receiving key.

Late next afternoon I must have collapsed from lack of sleep and didn't wake up until it was dark out. Rodney shook my shoulder gently and I jerked awake.

"We can't raise him any more," Bolles said. He shoved some sheets of paper into my hands. "We took down his last few messages."

They were brief messages, just snatches of what he must have tried to send. There was a short one thanking me for what I had done and one or two others that were rather garbled. The last one was a phrase from the Lord's Prayer and then that was all.

Bolles finished writing in his notebook, closed it, and carefully tucked away his pencil in his shirt pocket.

"His last name was Lyons," he said. "I don't suppose he was any relation."

"I thought you knew," I said. "It was in the public relations handout. He was my kid brother."

He looked at me rather strangely and I walked out of the bunker and into the desert.

I HAD walked about a mile before I hunkered down on a dune and glared back at the bitter stars. Some-

where in the infinity of blackness that stretched overhead was a frightened, lonely kid whom I had never understood before tonight. I thought of him now, still alive, scared and alone in the cabin of the ship, watching the small, blue globe of home fade into a pinpoint of light in the distance. A spot of light he wouldn't be able to tell from the millions of others in the sky.

I had never understood Mark. But

then I had never understood dreams and ideals and those who were willing to die for them until tonight.

I looked at the moon, still full except for a slim sliver off its edge, and suddenly realized that dreams don't necessarily die with the dreamer. Some day another kid would try again—and someday he would make it. Some day a kid like Mark would hold the stars in his hands.

THE END

## Here's how . . . YOU'LL TRAVEL IN TIME!

by

LEE

PURCELL

**N**EXT TO the dream of interplanetary travel, a dream which is slowly but surely approaching reality, the dream of time travel has captured men's imagination mostly. Theme of countless science-fiction stories, time travel off-hand appears to be as far from reality as ever, but through a new technique in the laboratory, the method of suspended animation, Man's age-old dream may be realized!

The idea of traveling through time physically and by means of physical agents seems to be an impossibility, so little do we know of the nature of time. But suspended animation would seem to be within the realm of accomplishment, should some way be found to preserve a human body with life intact for an extended length of time.

That feat, while not yet accomplished, is within reach certainly. A priest-scientist, working with low temperatures is having incredible success in preserving life in a state of suspended animation. Father Luyet has so far worked only with chicken embryos, but these are surprisingly high on the scale of life, consisting as they do of organisms with blood-streams and beating hearts; extrapolation to the human form may not be impossible!

The technique used by the researcher depends upon a fact or a number of facts learned comparatively recently. It is known that freezing preserves organic matter. It is also known that certain forms of animal life are capable of going into suspended animation (the cessation of practically all but the lowest bit of metabolism) as, for example, an African mud-fish. And, finally, something has been learned about the nature of freezing itself. This latter fact is extremely important. If you freeze an organic substance slowly, crystals form which burst and tear the structure of the substance, changing its flavor and texture and forever al-

tering it. On the other hand, very rapid freezing changes the substance into a quick-frozen material with a glassy consistency (not crystalline) and preserves the original structure of the material.

With these facts in mind, Father Luyet quickly immerses the chicken embryos in liquid nitrogen. This liquid, hundreds of degrees below zero, extracts the heat so rapidly from the embryo that it is really "quick-frozen". Then only a small amount of refrigerant is necessary to sustain this condition. To all intents and purposes, the embryo is dead—so slight is the metabolic rate. But not quite—for after about an hour, the embryo, immersed abruptly in warm water, *returns to life!* It has truly existed in a state of suspended animation. The question automatically comes—can the method be extended to higher forms?

As yet we do not know, for there is a technical difficulty. The larger the object, the more difficult it is to freeze rapidly, for heat must be conducted from the interior outwards and this takes time. Thus quick-freezing does not take place. If some technique can be devised to freeze the interior as rapidly as the exterior it is conceivable that a human being might undergo such treatment and exist in a state of suspended animation for some time.

Naturally this is purely speculative, but the very fact that a wedge has been driven into this fantastic idea, removing it from the realm of shadows, is hopeful. We can easily visualize the constantly attended crypt in which our adventurer is held, attended by all the gadgetry and scientific apparatus known to modern technology. Just imagine the reaction of a person preserved for any period of time! But the science-fictionists have done this already—yet, as thrillingly as they write it, they cannot provide any more spine-tingling conceptions than does the laboratory of Father Luyet, where a dream may become a reality!

# TOMORROW'S TOYLAND

By  
L. A. BURT

A REVOLUTION has been taking place in toyland, and the world of bunnies, teddy bears and electric trains is changing rapidly to one of atomic scientist sets, miniature chemical laboratories and small machine shops! The sweep of the technological age is felt even in Kiddie-Car Land. Junior won't play with a toy wagon—he wants a Diesel engine. A model airplane kit isn't any fun—give him a miniature rocket!

Actually the change is for the better. It is something which really started in the 'Twenties and which is now proceeding at a rapid pace due to the tremendous public interest in science and technology as well as to the ability of toymakers to provide incredibly realistic imitations of the real thing. The emphasis today is not only on amusement but on education. It is surprising how easily the two ideas can be combined and how well they serve each other!

We've discussed in detail on these pages in the past many of the new toys such as atomic scientist sets, electronics gadgets, etc., but a new device has made its appearance—a variation of the familiar engineering kits so popular with children in the past. This device is on a considerably higher theoretical level because it is less concerned with enabling the child to build bridges and machines than in teaching him the basic principles of mechanisms and

linkages. In fact, the device is suitable as a supplementary aid to engineering students who wish to see actual physical arrangements of the complicated mathematical linkage they study theoretically.

It consists of a multitude of gears, wheels, cams, levers, racks, elliptical gears, pinions, shafts, pistons, cylinders and all the rest of the paraphernalia of mechanical engineering. All of these gadgets may be attached to a flat board in which holes are punched. A crank and gear train serves as a simple motion-power source and the student (or player) may assemble these things into a multiplicity of engaging mechanical schemes.

Anyone, child or adult is fascinated by the ingenious workings of machines. This toy teaches them well.

It is an indication of what the toys of the future will be like. With so many educational devices at his fingertips, the future child will play with mechanisms and apparatus which might be thought suitable (at least in the past) only for the laboratory.

"Be careful, Junior—Mother doesn't want you to make a helicopter today!" or "You know, Gerald, Daddy doesn't approve of building that Moon rocket in the back yard—we're picnicking on Mars Sunday!" Well, maybe not quite that...but you never know!

## COLD ENOUGH FOR YOU?

by  
LEE  
OWEN

MOST research in low temperatures is done on a strictly laboratory scale, that is in terms of small test tube sized spaces. With low temperatures as important as they are now in the study of atomic physics, obviously larger cold chambers would be desirable. This has been accomplished recently. At M. I. T. they've succeeded in constructing a chamber with a volume of fifteen cubic feet which can be brought to within a few degrees of absolute zero—four hundred and fifty-nine point six degrees Fahrenheit! Brother, that's cold!

The technique used is the familiar one of compressing a gas—in this case helium—to a liquid and then letting it expand. In the process of expansion it takes up heat from the surrounding space and lowers the temperature. By a series of such regenerative cycles, extremely low temperatures can be reached.

What makes the chamber unique, in addition to its enormous size is the fact that liquid helium is the working medium and a more capricious substance does not

exist. Liquid helium defies every known scientific law, apparently including that of gravity! Actually this is an exaggeration, of course, but liquid helium is a most peculiar liquid and scientists are far from knowing exactly why it behaves as it does, because they know the answer lies buried somewhere deep in the abstruse theories of quantum mechanics.

Liquid helium will penetrate the most minute interstices and orifices. It will creep through solid steel after a time and it has the most disturbing faculty of literally climbing up the vertical side of any container.

The primary reason for the study of this winsome fluid is not to examine its peculiarities as much as to get some clue to the fundamental nature of matter. Scientists suspect that the behavior of matter at low temperatures—helium's idiotic behavior and lead's superconductivity—will lead to the real nature of matter. The core of the atom need not be shattered by super-bolts—super-cold may offer an easier entrance!



# **"YOU'LL DIE ON GANYMEDE!"**

**"Sure we'll leave you in peace,"  
Murtree told the Ursoids. "But  
first you'll have to drop dead!"**



**"But I tell you I'm on your side!" Jeff shouted. "You've got to listen to me!"**



By Guy Archette



“**A** MBUSH!” Jeff Ballard jack-knifed his rangy frame over the control stick of the little jet skimmer as a sudden explosive flashing drummed against the canopy. Violent popping

sound filled the craft's small interior. The tough transparent plastite of the canopy bellied inward under the smashing impacts.

Jeff Ballard cursed bitterly. He'd flown straight into a trap. The marks-

man hidden to one side of the steep Ganymedan mountain pass was using a blast-pellet rifle—and he had the skimmer dead in his sights. The canopy wouldn't hold out under the harsh battering it was being given. And the skimmer was already flying at the top of its limited ceiling.

Ballard jerked at the control stick. The narrow confines of the pass made evasive maneuvers risky, but he couldn't hold his present course.

Craggy rock walls whirled by in the blue twilight that was day on Ganymede as his agile little craft darted down toward the floor of the pass. The stream of blast-pellets followed him. Again he jerked at the stick. The rock walls seemed to twist as the skimmer shot upward. Still that deadly stream of explosive brilliance followed, but now it came from his rear instead of from directly ahead.

Before him, between a slit-like narrowing of the imprisoning walls, was the exit from the pass. If he could reach it before—

A metallic rending at the rear of the skimmer warned him of disaster. The marksman planted in the pass evidently had shifted his fire to the skimmer's tail tubes—and had made a lucky hit. A fuel valve had been damaged, ruining its section of the pumping mechanism in the split-second before the automatic circuits went out of action. The drone of the jets vanished as the skimmer's engine died.

The little craft dipped down, even while its original momentum still carried it forward. Hands braced against the instrument panel, Ballard stared at the jagged rock surfaces that were flashing past. His sensations were compounded at once of fury and icy dismay.

There was nothing he could do now except hope for a miracle. Skimmers were necessarily frail craft, lacking

the safety devices and protective padding of larger jet jobs. When his craft hit, it would come apart...

There was an eerie silence as the skimmer hurtled on, powerless, beyond control. The scintillant crashing of the blast-pellet rifle no longer followed it. The marksman back in the pass seemed to be watching the result of his hit.

Directly ahead was the slit-like exit. A dim hope struggled in Ballard. Maybe...just maybe...

But the skimmer was veering too close to the rock wall at one side. A fanged projection loomed in its path. Ballard threw himself sideways in his seat, wide lips flattened in a grimace of desperation.

There was a jolting shock as the skimmer hit. Metal ground against stone—and tore. The skimmer rebounded from the opposite wall and from there dropped the few yards that remained to the bottom of the pass, rolling crazily, until a jagged mass of rock brought it to a halt. A shower of loosened stone rattled down on the motionless craft.

**B**ALLARD was bruised, shaken, dazed. A black fog seemed to fill his head. Then realization came that he was somehow still alive. He shifted his body, experimentally. No broken bones. The miracle, it seemed, had happened. But he was not yet out of danger, and that thought brought a final sharpening of awareness.

He twisted in his cramped position, peering about him. He lay within the curved shell of the canopy, and he realized it was the tough, shatterproof plastite that had kept him from serious injury. The skimmer rested on its side, against the base of one of the rock walls. A yawning gap stretched between the canopy and the hull, where the metal had been bat-

tered in and partly torn away. The thin, icy air of Ganymede was already rushing in.

Ballard squirmed toward the gap, squeezed through. The marksman somewhere up in the pass might not yet be satisfied with his handiwork. And if he wasn't—

Apparently he wasn't. Blast-pellets suddenly began their flashing explosions as they hit the skimmer, making a brilliant and lethal trail of exploration.

Ballard kept the bulk of the craft between himself and the rifleman as he hurriedly crawled away. He scuttled around a shoulder of rock, saw a deep fissure and slid into it.

The crashing of blast-pellets continued for a few moments more. Then silence fell.

Ballard thumbed open the catch on the holster pocket of his heavy insulated coverall and slid his hand inside, against the flat, slim shape of his mach-pistol. His other hand went into the pocket on the opposite side. He had left his gloves in the skimmer, and his hands were already numb with cold. He didn't want to meet an emergency with useless frost-bitten fingers. It was almost colder on Ganymede than even specially acclimatized, specially garbed humans could bear. But no hostile, alien environment had as yet wholly succeeded in keeping Man, the stubborn and venturesome, from the planets.

Ballard waited, his ears straining at the thin air. The rifleman might come down from his hiding place to make certain of his kill. If he did, Ballard intended to give him a violent welcome. He knew now, beyond any possibility of doubt, the type of individual he was pitted against. There could be no squeamishness, no hesitation. Either would prove fatal, as he had learned from first-hand experience with the lawless men who

roamed the wild Jovian frontier worlds.

LONG minutes passed with no sounds of an approach. Ballard remained where he was, coldly aware that the rifleman was not alone. The other's companion was somewhere nearby, in the skimmer Ballard had so painstakingly followed from Ganymede. Despite his care, the two evidently had discovered they were being tailed. They had laid a trap here, knowing Ballard would have to use the pass. There was no other near enough that he could have used without losing sight of his quarry, nor did a skimmer have sufficient power and altitude to clear the mountain wall.

One of the men had been dropped off to wait in ambush for Ballard's arrival. The other had guided the skimmer into the concealment at some point close at hand. The narrowness of the pass had insured that Ballard's skimmer would be caught within practically point-blank range of the blast-pellet rifle. A miracle had saved him, but he knew he was not yet clear of the trap. The man in the skimmer was a dangerous factor in the little game of life and death that was being played.

Ballard suddenly wondered if there were a possibility that he could check on this man. The other's companion would open radio contact if convinced that Ballard had been put out of action.

Unfastening a breast pocket of his coverall, he removed the receiver of the tiny built-in radio unit and fitted it into his ear. He experimented with the volume and wave-band controls, making certain that the radio hadn't been damaged in the crash. Then he began hunting for the wave-band the two men might be using—if they were in contact at all.

It swiftly developed that they were.

"...sure you finished him, Chondhas?" It was a heavy, rumbling voice that would belong to the taller of the pair, a hulking man with pale hair and thick, reddish features.

"He couldn't have lived through the crash," the other man answered, his higher-pitched tones holding a trace of irritation. This would be the dark, gaunt man with the hooked nose. "I can see part of his skimmer from up where I am, and it's pretty badly wrecked."

"Maybe we ought to have a look at him—make sure," the hulking man suggested. This, Ballard realized, was the one who had remained with the skimmer.

"Why bother, Sven?" the hook-nosed man returned, his irritation more evident now. "Even if he's still alive, he won't be able to follow us to headquarters, and that's the important thing."

"But the boss'll want to know who he was," Sven said.

Ballard's eyes narrowed in swift interest. The boss! That meant Chondhas and Sven were just underlings, mere pawns. Behind them was an organization of some sort, indicating that the illegal and vicious traffic in Ursoid pelts had deeper ramifications than had appeared on the surface. It involved more than just a few unscrupulous trappers and bribe-taking spaceship officers.

**A** COLD rage kindled in Ballard. Trapping and killing Ursoids for their gorgeous fur pelts was nothing more or less than cold-blooded murder. He was more determined than ever to stamp out the racket, even though the job was proving to be bigger and riskier than he had expected.

A bleak yearning filled him. He had to learn the identity of the

person for whom Chondhas and Sven were working. He had to end this person's activities, if not his very life.

"A name!" he breathed. "Just the hint of a name!"

He listened tensely as Chondhas spoke in answer to Sven: "The boss will be able to figure out who the guy was, all right. Who do you think, you space-headed Swede? A cop, of course. Maybe a Ranger, maybe a government dick. That's why he followed us from Ganyport the way he did. Guess he was trying to get a line on headquarters."

"The boss won't like that." Sven sounded uneasy. "He doesn't want anybody to find out he's mixed up in—"

"That's enough about the boss!" Chondhas snapped. "Can't tell who might be listening. We'd better get back on our way, too, so bring the skimmer over here. And hurry it up. I'm freezing and want a drink."

"Aw, keep your jets cool, will you?" Sven growled. "Any time a cussed Hindu thinks he can..." The rest faded into a profane muttering.

A short time later, Ballard heard the drone of an approaching skimmer. He had a brief glimpse of the craft as it flew past his hiding place. Slipping out of the fissure, he peered into the pass from around an angle of rock. The skimmer reached a spot high on one wall and was made to hover, a delicate balancing on its jets that could be maintained for little more than a few seconds. But this was enough for the figure of a man, small and dim with distance, to swing into the cabin.

Seeing that dim shape, Ballard wished fiercely for a rifle. His machopistol didn't have the necessary range. In the next moment, however, he realized that putting Chondhas and Sven out of action would accomplish little more than to warn their unknown boss

of trouble. It was the boss Ballard was after. If the boss was led to believe that he had perished in the crash, his task would be that much easier.

The skimmer went toward the far end of the pass to find space in which to nose around, and Ballard retreated back into the fissure. When the craft passed him again, he watched it vanish into the dusky sky. He waited until certain it would not return, then went to his own wrecked craft and removed the emergency pack from its special compartment. This contained food, water, a shelter-bag and other articles necessary for a stay in the inhospitable environment of Ganymede. A purely temporary stay. Ballard knew he wouldn't survive for more than several Ganymedan days. Within that time he would have to find shelter among other Earthmen—not too likely a prospect, considering that the planet was as yet only sparsely inhabited. But if any were nearby, he would know when they came within the limited range of his tiny radio.

**S**HOULDERING the pack, he made his way out of the pass and set off in the direction taken by the skimmer. An expanse of precipitous, rocky hills lay before him, and his progress at the very outset was slow and difficult. His path wound down steep slopes and up craggy walls, across stretches of wildly tumbled slabs and boulders. Though his weight was considerably less than half of what it would have been on Earth, quickened breathing in the chill, thin air was hard labor even for acclimatized lungs, and his exertions soon tired him.

As he went, he kept alert so that he would not be unexpectedly caught by the swift descent of the Ganymedan night. He watched the im-

mense, banded orange crescent of Jupiter against the jagged horizon, made luminous with reflected light from a sun roughly one-fifth the size of the sun seen on Earth. When Ganymede rotated away from both the sun and its primary, there would be a hellish interval of freezing darkness and demoniac winds—winds that often drove before them ice-needle storms of such fury as to flay the skin from an unprotected man's face.

To Ballard, it was beginning to seem that the succession of hills would never end. Exhaustion weighed his limbs, and air hunger, brought on by his unceasing efforts, filled his head with a giddy lightness. At last, as he gained a broad crest, he sank against a rock, his breath pluming swiftly in the frigid air.

Slowly his head cleared. He saw now that the hills were thinning out. Beyond them, dim in the deepening twilight, was what seemed to be a broad valley. But he knew he wouldn't be able to reach it until the night period had passed. The vast crescent of Jupiter had shrunken in the last stages of its descent below the horizon.

With a protesting ache of stiffening muscles, Ballard finally straightened. He would have to make camp before night closed down. Somewhere at the foot of the crest he hoped to find a spot, sufficiently protected from the violent night winds, where he could spread his shelter-bag.

He shifted the pack to a more secure position on his shoulders, and started toward the edge of the crest. In the next instant he stiffened as his eyes caught a flicker of motion over the valley, ahead. He squinted against the dusk—and then his lips curled back from his teeth.

"A skimmer!" he breathed. The craft seemed to be moving directly toward him, and he realized suddenly

that his figure, on the exposed crest, was limned against Jupiter's dwindling crescent. He could hardly escape being seen. And if the skimmer were bearing Chondhas and Sven, ordered by their mysterious boss to return for an inspection of Ballard's wrecked craft—

He whirled back to the rocks where he had rested. Swinging his pack to the ground, he slipped off his glove and fumbled for the mach-pistol. He knew he was at a serious disadvantage, but he intended to put up as much of a fight as was possible.

Those in the skimmer evidently had seen him. The craft was slanting down toward the crest.

**HE CROUCHED** against a shielding stone slab, the mach-pistol gripped tensely in his hand. At any instant, now—

The next development took him completely by surprise.

"Hello, down there! Are you in trouble?" It was a man's voice that Ballard had not heard before, a friendly voice. "I'm going to alternate my call on different bands, so signal me if your radio is getting this."

Only now did Ballard realize that he had left his radio unit in operation, that the receiver was still in his ear. He reached into the elastic opening of his coverall hood, lifted the radio throat mike into position.

"I'm getting your call," he answered. "Who are you?"

"Glad to know we've made contact. My name's Keith Murtree. I have a homestead near New Olympus, a settlement about twenty kilometers from here. But what about you? Are you alone? How does it happen you're on foot?"

Ballard gave his own name. He was unknown in this section of the planet and saw no reason to assume an alias. He went on, "I'm alone, yes. My

skimmer developed engine trouble and smashed up in landing. I do trapping and prospecting, you see, and had the idea of looking into the possibilities of this part of Gany."

"You came to the right place," Murtree returned. "Well, I guess you could use a lift to New Olympus. I'll be down to pick you up."

"I certainly could use a lift," Ballard said. "Thanks."

New Olympus. That obviously was the place where Chondhas and Sven had gone. He looked forward to seeing the pair again.

The skimmer had been circling the crest while Ballard and Murtree talked. Now it lowered on its jets and came to a smooth landing.

Ballard saw then that Murtree was not alone, for two figures were visible within the skimmer's plastite cabin. As he strode up one of them emerged, a heavy-set man, fully as tall as Ballard himself, whose coverall—the standard article of outdoor clothing on almost all the Jovian worlds—was expansively designed and equipped. The skimmer as well was a sleekly luxurious sports model. For a homesteader, Murtree seemed to be a prosperous one. But he would not be the first to have struck it rich on the booming Jovian frontier.

Murtree extended his hand. "Glad to be of help. Gany is no place for a man on foot." His grip was hard, brief. He had large, powerful features and shrewdly appraising dark eyes. Wiry red hair showed within his loosened coverall hood.

"It's decent of you to go through all this trouble," Ballard returned by way of acknowledgement.

"No trouble at all," Murtree insisted, his tone jovial. "We Earthmen have to stick together, you know." He gestured at the skimmer. "Climb in, and we'll get started."



**B**ALLARD thrust his pack into the rear of the cabin and eased his long body gratefully onto the thickly padded seat. Only then did he send a look at Murtree's companion, who was waiting quietly on the seat in front of him. He was startled to discover that the other was a girl—and one of the prettiest he had ever encountered on Ganymede. Women on the planet were few unusually attractive ones even more so.

The girl had her coverall hood thrown back, revealing deep chestnut hair that clustered in soft curls about a vivid, finely molded face. Her eyes were a luminous gray under dark, straight brows, disturbingly direct as she studied him. At the moment she seemed grave and aloof, but the corners of her full lips held quirks that told of a warm and humorous nature.

Only a moment passed before Murtree slid his muscular bulk into the seat before the flight controls. He smiled at the girl and turned to glance back at Ballard.

"This is Helen Strand," he said. "We were taking a little ride out this way when we sighted you." His jovial tone had subtly changed, as though to suggest that the good will he was extending toward Ballard had reached its limit where the girl was concerned.

Ballard exchanged polite nods with Helen Strand. He tried to accept her on her own aloof terms, but it had been a long time since he had met a girl as pretty, and he found it hard to do. Nor did he care for Murtree's jealously protecting attitude.

Murtree lifted the skimmer into the air and sent it soaring toward the valley in the distance. Then he cut in the robot pilot and returned his attention to Ballard.

"So you're a trapper," he said. "How've you been making out?"

Ballard lifted one shoulder in a

shrug, grinning wryly. "Not as well as I'd like, to be frank. Too much competition. There's getting to be more men on Ganymede than animals, these days."

Murtree nodded, scowling. "It's the government's fault. The government and the big interplanetary corporations. Time was when it cost a small fortune to get out to the planets. Contract men had to work several years to pay their passage. That held migration down. But now there's more trade, more ships on the interplanetary runs. And with the government and the corporations taking a hand in things, men are coming out to the planets in droves."

He moved one large, well-kept hand in a gesture of indignation. "They call this the interplanetary frontier. But the real frontier is gone. It's moved on, past Jupe. Now there's too many laws, too many taxes, too much government supervision."

"You're hitting all jets there," Ballard said in quick agreement. Murtree, he told himself, was a valuable source of information regarding the inhabitants in and around New Olympus, and it would be wise to play along with the man. "Newcomers to Gany have a kind of excuse for what's going on—progress. Well, if it's progress, all I got to say is that it's making things too tough for a man in my business."

**B**ALLARD put a confiding note in his voice. "To tell the truth, my trip to these parts was sort of a last fling at the trapping game. This region is still thinly settled, and I heard there was a lot of fur-bearing stuff around. Not too many other trappers working it, either. I've chased too many false leads, though. If this is another one, I guess I'll have to go in for vulcanium prospecting. Trouble is, vulcanium's about as rare as paper jet tubes, and

the profits are slow compared to trapping."

Ballard was aware that Helen Strand's gaze had become increasingly disapproving as he spoke. But he kept his full attention on Murtree. He looked quizzically at the other, inviting his comments.

"There's vulcanium around New Olympus, all right," Murtree said with an authoritative air. "Not much, as far as I've been able to find out, however. I have interests in a couple of vulcanium mines, but the ore's low-grade stuff. As for fur, I'd say there was enough of it, in the wild country back of New Olympus, to make trapping pay. I've seen plenty of pseudo-foxes and rock-cats around. And there's a big tribe of Ursoids hidden out in the mountains near New Olympus. But trapping Ursoids is illegal, of course."

Ballard shrugged. "I've heard of it being done. You can't be around trappers long without hearing them talk about Ursoid pelts and the prices they bring on Earth and Mars. One good pelt alone is worth a thousand standard I.P. exchange units. That's more than most trappers earn in half a year of work, Earth time. And it isn't too hard to smuggle Ursoid pelts off the planet, in spite of the best the government can do to prevent it."

"Trapping Ursoids!" Helen Strand suddenly burst out, as though she had found it impossible to remain silent any longer. "It's... why, it's cruel—monstrous! Ursoids are among the most intelligent alien life forms so far discovered. They're almost human. Trapping them—killing them—is the most heartless thing any man can do!"

"You might try explaining that to the people on Earth and Mars," Ballard returned mildly. "They're the ones who support the traffic in Ursoid pelts."

Helen shook her chestnut curls impatiently. "They just don't realize the situation. Ganymede is far away, and the Ganymedan natives aren't real to them. As far as they're concerned, the stories they hear about the Ursoids being intelligent and having a well-developed culture are just part of the half-mythical things they're always hearing about the planets. And, naturally, a coat of Ursoid fur doesn't tell anything about the creature that originally wore it." ~

"Well, I'd say it was the fault of the Ursoids that people know so little about them," Ballard countered. "How can anyone be certain the creatures are intelligent and more or less civilized, when they're hardly ever seen? They avoid human beings, and their cave villages are in the mountains, where they're practically impossible to find."

"The Ursoids have every reason to avoid human beings," Helen snapped. Her features were taut with growing anger. "Their experiences with the first settlers on Ganymede were anything but pleasant. They were shamelessly cheated and abused. And for all they know, they won't receive any better treatment today—not with trappers after them for their pelts."

"But the fact that the Ursoids hide away is the main reason they can be trapped at all," Ballard pointed out. "If they lived near men, it would at least be possible to protect them. As matters stand, nobody knows what's happening to them—until Ursoid pelts turn up on Earth and Mars."

HE WAS deliberately baiting the girl, a procedure he had no particular reason to enjoy. But he wanted at the very outset to establish himself as a person with no apparent sympathy for the Ursoids—even if it damned him in the eyes of Helen Strand.

"What I don't quite understand," Murtree put in with the tone of one pouring oil on troubled waters, "is why people in this day and age should take to wearing fur at all. Not only Ursoid fur, but just about any other that looks good. I thought it went out of fashion long ago."

"Fashions have a way of coming back into favor," Helen said. "People today are tired of synthetic materials. And with wealth pouring in from the planets, they're prosperous enough to indulge in all sorts of luxuries—especially luxuries from other worlds, which always seem more glamorous than native products." She sniffed. "That shows how civilized we are, compared to the Ursoids."

"Just how civilized are the Ursoids, anyway?" Ballard demanded. "They don't have space ships, or any of the outward signs of civilization."

"But you don't find them wearing the skins of human beings!" Helen flashed back.

Ballard lifted his shoulders. "For all we know about them, they might be doing just that."

The girl's glance was scornful. "Enough is known to be certain they don't do any such thing. They may be primitive, compared to us, but they're not complete savages. They're gentle, and they'll be friendly, when they know they can trust you. I know an old prospector by the name of Lonesome Cotter who actually lived among them. It was old Lonesome who gave me the information I have about the Ursoids. He told me they're almost human—even if they do look a great deal like bears. They have a well-organized tribal community, laws, tools—just about everything an advanced primitive race would have."

Ballard shook his head. "I'd like to have a look at this Lonesome Cotter's pelt. I'll bet he's part Ursoid."

"You...you're impossible!" Helen

sputtered. "I know what you're part of—skunk!" She whirled in her seat, turning her back to him.

Murtree glanced at Ballard with lifted red brows, shrugged, and returned his attention to the controls. Below the skimmer and a short distance ahead, the lights of a small town gleamed against the deepening twilight. Around the edges of it were lights of scattered houses.

"Want me to drop you off at your place, Helen?" Murtree asked.

"Yes," she snapped. "I just can't wait to breathe clean air again."

MURTREE brought the skimmer down before one of the scattered buildings, a large structure with windows cheerfully aglow. A man came up as Helen let herself out. The skimmer's lights showed him as erect, white-haired, with weather-beaten features that held a quiet dignity. Helen spoke to him briefly, and he leaned to peer into the skimmer's cabin. He nodded at Murtree, then shifted his attention to Ballard.

"This is Jeff Ballard, a trapper," Murtree explained. "His skimmer broke down in the West Range, and Helen and I sighted him." Murtree turned to Ballard. "Meet Matt Strand, Helen's father, and the mayor of New Olympus."

"Glad to know you," Ballard extended his hand.

Matt Strand remained motionless, his deep-set eyes cold. "Hear you might be figuring to trap Ursoids, son."

"That's news to me," Ballard said.

"Is it?" Matt Strand asked without change of tone or expression. "Helen seemed dead certain you were figuring on doing just that."

Ballard shrugged. "She got that impression as the result of a little argument we had over the Ursoids. Nothing else to it."

"I hope so, son, for your sake," Matt Strand returned gravely. "But just in case, maybe I'd better warn you not to blast a wrong course if you plan to settle around New Olympus. I have the law behind me, and I'm going to keep an eye on you."

A moment later Murtree exchanged good-nights with the Strands, telling Helen he would see her again soon. Ballard noted that the girl's reply showed little enthusiasm, which seemed to indicate that Murtree's proprietary attitude toward her was based on a weak foundation. Ballard felt an odd relief—and at the same time a sudden unease about the suspicion and dislike he had aroused in the girl.

Lifting the skimmer into the air again, Murtree turned a quizzical glance to Ballard. "Helen and her father are touchy on the subject of Ursoids. Guess they were pretty hard on you."

Ballard shrugged. "It was no more than I deserved for getting into a fool argument."

"Matt Strand can be a lot harder than he was, though," Murtree went on. "He's an old timer—plenty tough and shrewd. The old timers had to be, to have survived on Gany back in the days when there were no modern conveniences. If you figure on going after Ursoid pelts, you'd better plot a safe orbit around Matt Strand."

"I never said I figured on going after Ursoid pelts," Ballard returned.

Murtree's broad mouth curved in a sardonic grin. "You don't have to be careful with me, Ballard. I seldom let sympathy interfere with profit. I'm a practical man, and I'm taking you for a practical man, too." He gestured at the lights of the town, below the moving skimmer. "You plan to put up in New Olympus? There's a couple of hotels around the jet terminal."

Ballard nodded. "Guess that's the

only course to take right now. I won't be able to get to work until I can buy or rent another skimmer."

Murtree looked thoughtful. "Tell you what, Ballard. I have a ranch not far from town. Raise puffies and runt-bison, but actually my business activities go deeper than that. Why not put up at my place? I can use a man with your trapping know-how, and I have a little proposition that will interest you."

**B**ALLARD studied the other with suddenly narrowed attention. "Would this proposition of yours have anything to do with the Ursoids?"

"I said it would interest you."

"In that case, I'll take you up."

"Good. We'll talk business as soon as we land at the ranch." Murtree chuckled. "You know, Ballard, I kind of liked the way you handled Helen Strand. She's been needing to be put in her place, and I was going to get around to it before much longer."

"I wondered why you didn't cut my power."

Murtree shook his red mane. "You were doing fine. Trouble with Helen, she's too idealistic, too independent. She needs a man to knock some sense into her—and I figure I'm just the one to do it."

Murtree's ranch, it developed, lay on the same side of New Olympus as did the home of Matt and Helen Strand, though a considerable distance further back, losing itself in isolation among the valley foothills. Ballard first saw a cluster of lights, then as the skimmer drew closer, the outlines of several long, low buildings. It was now quite dark.

Murtree spoke briefly into his radio, informing someone at the ranch of his return. Floodlights sprang up about the margins of a small landing space, and Murtree brought the

skimmer to rest before a hangar at its end.

The night winds swooped at them as they emerged from the craft, violent and numbingly cold. Shielding their faces within their hoods and bending almost double against the blasts, they made their way toward one of the buildings.

Ballard was ushered into a long room, where half a dozen men sat around a table on which a quadrant gambling layout was spread. A swift glance at the tiered beds along one wall told Ballard this was the living quarters of Murtree's ranch hands. The room was strictly utilitarian and not especially clean. The warm, muggy air was redolent with the odors of cooking, tabac smoke and perspiration.

Surprise flashed through Ballard as he centered his attention on the men around the table. For among the cold wary faces that peered at him were those of Chondhas and Sven.

A sharp awareness of danger cut across the bleak delight that rose in Ballard. Chondhas and Sven—here! It was the last place on Ganymede he would have expected to find them. And it meant that their boss, so far unknown, was none other than Keith Murtree.

**T**HERE WAS a silence—a silence that seemed queerly drawn out to Ballard. He realized that the gaze of the men had become mocking, as though they watched some drama of which he himself was not yet aware. He turned questioningly to Murtree. And froze.

The rancher was holding a machopistol, his powerful features harshly set. His dark eyes met Ballard's in a flat stare.

"Don't move," he said. He sent a call toward the table. "Chondhas! Sven! Come over here."

The two rose and strode forward.

Chondhas' narrow, dark face held a kind of evil excitement.

"Is this the man who followed you from Ganyport?" Murtree demanded, gesturing at Ballard.

Eyes widening, Chondhas darted a swift glance at Sven. "We never got a look at the guy in Ganyport, Boss. We didn't know anybody was tailing us until we were on our way back here."

Murtree indicated Ballard again. "I picked him up near the West Range, not far from the pass where you said you shot down the skimmer that followed you. He told me his skimmer developed engine trouble and was wrecked in landing."

Chondhas shook his head, looking uneasy. "I don't see how it could be the same guy, Boss. I know how to handle a rifle, and I had the skimmer square in my sights. I saw it crash. There wasn't a chance anybody could've got out alive."

"You fool!" Murtree burst out. "Why didn't you make sure? And why don't you be more careful when reporting by radio? I was in the ship with the Strand girl when I got your call, and it took everything I could do to keep her from overhearing. And with her right next to me, I couldn't order you and Sven back to examine the skimmer you shot down. I couldn't wait until I was alone, either, since it would have been dark by then. So I flew out to the pass with the girl, on the chance I might see somebody moving around the wreck. I sighted Ballard, here, and picked him up. If he had slipped through our fingers—"

Ballard said mildly, "Would you mind telling me what this is all about?"

"Cut it!" Murtree snapped. "Bluffing isn't going to help you any. You're no trapper, Ballard. You're a government man, tracking down the source of Ursoid pelts being shipped from

Ganymede. That's why you followed Chondhas and Sven. Somehow you learned they had brought a bale of pelts to Ganyport, and that started you after them."

Ballard shrugged. "I learned they had brought in some pelts, all right. And I followed them. But that doesn't mean I'm a government man. All I wanted was a line on their trapping grounds, and following them to get it was something that just happened. Kranz of the *Solar Queen* could have swung an introduction for me, but I missed connections by less than a quarter of an hour."

Chondhas said in surprise, "You know Kranz?"

"Sure," Ballard said. "Kranz has handled pelts for me. In fact, I brought him two almost right after you and Sven left him. I'd run into trouble in the Ghatra Territory, and needed a change of scene. Kranz said you had a good location and belonged to a smart outfit. He told me to look you up while you were in Ganyport, and offered to vouch for me. By the time I found you, though, you were starting back to New Olympus, and the *Solar Queen* was getting ready to blast off. So I followed. There was nothing else to do. Being one myself, I know how edgy Ursoid trappers are. If I'd tried to get into radio contact, I'd have been shaken off—or had a fight on my hands."

He grinned ruefully and added: "Even at that, I ran into trouble."

CHONDHAS turned to Murtree. "His story sounds all right to me, Boss. And if he knows Kranz—"

"Shut up!" Murtree growled. "Nobody asked for your opinion. As for this Ballard, he's just a little too smooth and quick to satisfy me. He could have gotten to Kranz—and made him talk."

Murtree jerked the mach-pistol at

Ballard. "Climb out of your suit." To Chondhas and Sven he added, "Search him."

Ballard unsealed his coverall, slipped it off and turned it over to Chondhas. Coveralls were analogous to space armor, offering protection against an alien environment and containing storage for the wearer's needs. The garments could be—and sometimes were in the custom-made jobs—converted into portable arsenals and bags of tricks. Ballard's suit, however, was a standard model, and as swiftly became evident, contained nothing out of the ordinary. Yet Chondhas hesitated over it, vaguely puzzled for some reason he seemed unable to fathom. At last he shrugged and put the coverall aside.

Sven's task, a personal search of Ballard, proved simpler and quicker. Ballard wore only a thick turtle-necked jersey and narrow trousers tucked into soft buskins that reached mid-way to the knee. These revealed nothing.

Murtree looked sullenly disappointed. "I guess you played it smart, Ballard. You left behind everything that would get you into trouble if you were caught snooping around. I'm dead certain you're a government man—and I think I can prove it. You see, I have a supply of narcoveritol, the truth drug. I'm going to give you a dose—not to make you talk, but to see if you don't talk. Because I happen to know government men have mind-blocks set up by expert psycho-technicians. Narcoveritol doesn't work on them. So you'll just blank out."

Murtree smiled thinly. "And if I'm right, you're going to disappear—for good. With what you've found out about me, I can't take any chances. Helen and Matt Strand know about you, of course, but I can produce witnesses to testify I landed you at



the jet terminal in New Olympus. There's a tough bunch around the jet terminal, and for all anyone will know, you might have been shanghaied. It has happened."

Ballard shook his head dolefully. "I should have known better than to cut in on somebody else's Ursoird trapping racket."

"Maybe you should have known better than to be a government man," Murtree returned. He bared his teeth in a wolfish grin. "As for the Ursoids, it might interest you to know I'm planning to make a clean sweep. No more picking up a few pelts here and there. It's been getting too hard—and too risky."

"Helen Strand mentioned Lonesome Cotter. Well, I've had him followed, Ballard. The Ursoids trust old Lonesome and let him into their hidden cavern village. I've learned where the entrance is located—and I'm going to make the biggest haul of pelts any Ursoird trapper ever made. There'll be hundreds of the Ursoids in the village—a fortune in pelts. I'll swing in a gold-plated orbit for the rest of my life."

**T**HE RANCHER'S voice had risen in a kind of gloating excitement. Dark eyes gleaming, he seemed to look beyond Ballard and into some private paradise.

Ballard fought to keep his own emotions from showing in his face. Dread filled him, and a sick rage. He wanted suddenly, fiercely, to leap at Murtree, to smash him down. Only his awareness of the rancher's watching henchmen held him back.

Murtree's plan involved a wholesale massacre of the Ursoids, Ballard realized. Somehow, whatever the cost to himself, he had to prevent that.

"I'm going to the house for the truth drug," Murtree said abruptly, swinging to Chondhas. "You and the

boys keep an eye on Ballard until I get back. And don't get careless again, either. If he slips through our fingers, so does a fortune in Ursoird pelts." The rancher swept a hard black glance over the group before he started toward the door, pulling up the hood of his coverall.

Chondhas and the others had produced weapons, and with these frowning at him, Ballard was ordered into a chair against the wall near the table. Tilting the chair back, he sat with an appearance of calm, but tension was a mounting pressure inside him. He thought with brief, sharp yearning of the skimmer parked outside. He knew he couldn't afford to wait until Murtree returned.

The men gathered at the far side of the table, entering into a muttered but animated discussion. They were, Ballard discovered, laying bets as to whether or not he was actually a trapper. The odds in his favor were encouraging.

Ballard yawned and shifted his position in the chair. This drew several sharp glances, but no warning to indicate that similar actions would prove dangerous.

Ballard thought of the skimmer again. He glanced idly toward the spot, a short distance from the table, where Chondhas had placed his coverall. Just as idly, he looked at the lights set flush with the ceiling, and ran his gaze over the walls until he located the switch box. Chondhas and the others were arguing about odds.

Ballard yawned again, and stretched. The glances were less sharp, this time. He prolonged the stretch, reaching his hands back to scratch the nape of his neck. With swift fingers he plucked a small metal tube from an elastic loop inside the collar of his jersey. He transferred the tube to his mouth under the pretense of patting away his yawn. He

kept the hand over his mouth, supported in the palm of the other, and assumed an expression of sleepy thought.

**P**RESENTLY there was a sudden flicker of alien motion in the room. Chondhas and his companions whirled, stared and made astonished noises.

Ballard's coverall was rising from the chair over which it had been draped. It swayed erect to its full length, the metal-weighted boots shuffling against the floor. Momentarily it displayed a grotesque travesty of life, bobbing and jerking in a kind of boneless dance.

Ballard felt a distant tingle of pride. It had taken long practice to get the coverall to respond satisfactorily to the variations in pitch of the supersonic whistle. Within certain limits the coverall could be controlled by its relatively feeble Doekkler gravity field as a puppet is manipulated by strings.

"That suit!" Chondhas gasped. "I thought there was something funny—"

At about this point, Ballard decided that the attention of the group had been sufficiently distracted. He lunged from the chair, caught the edge of the table and heaved it into the men, who had begun swinging toward him in belated realization of the trick he had employed. They went down in a cursing tangle. A gun let out a burst at the ceiling, making its characteristic sharp *rrr-r-r-ttl* of sound.

Without pausing, Ballard leaped the table, treading a couple of his erstwhile guards as he hurried toward the switch box. A gun spat at him, but the marksman's aim was spoiled by the colliding body of a companion, who was struggling to regain his feet. In another moment Ballard reached the switch box, and the room

was plunged into blackness.

He bent, then, and hastily crossed the floor to the opposite wall. The noises of Chondhas and the others concealed the slight sounds he made. Some of the men had begun firing in the direction of the switch box, spraying their shots along the wall on both sides of it.

Carefully judging previously memorized positions, Ballard felt his way toward the chair into which his coverall had collapsed. It was a risky maneuver, for the other men were little more than a few yards away. He lifted the chair and hurled it across the room to keep them occupied. Then, retreating, he fumbled with the limp folds of his coverall. His machipistol was still in its holster, but what he sought was an object in an artfully hidden pocket.

"The door!" Chondhas suddenly yelled. "Watch the door, you space-heads! Don't let him get out!"

Ballard found what he was looking for, a small disk the size of his thumbnail and about a quarter of an inch thick. Moving a miniature lever in its side, he hurled the disk toward the wall across from him and dropped to the floor, the coverall pressed protectingly about his face and head.

**T**HERE WAS an eye-shattering flash of brilliance, a roar of sound—and in another moment the savage night winds of Ganymede were pouring through a gap in the building large enough to admit a skimmer. Ballard plunged through the gap, drawing his breath in sharply as the winds hit him with their violent force and numbing cold. Blinded and confused by the explosion, Murtree's underlings were unaware of his flight. Two of the men, injured by flying debris, were swearing in pain.

Ballard fought his way through the onslaught of freezing blasts. He found

momentary relief behind the sheltering bulk of an adjacent building, and here, with almost frantic haste against the bitter cold, he climbed into his coverall, his chilled fingers clumsy.

Sounds reached him over the keening of the winds—shouts and the pounding of weighted boots on frozen ground. Peering cautiously around the side of the building, Ballard saw bobbing flashlight beams, and then the figures of two men running toward the structure he had left scant minutes before. One of the men, revealed briefly by the beam in the hands of his companion, was Murtree.

Within his coverall hood, Ballard's lips widened in a tight grin of satisfaction. The path to the skimmer was now clear. It would take some time for Murtree to learn what had happened and organize pursuit. By then, Ballard thought, he could reach the skimmer and get it into the air.

Steeling himself, he left his shelter and set out once more into the fury of the winds. The dim shapes of the surrounding buildings guided him through the darkness, toward the hangar in front of which Murtree had left his craft.

He had not gone far in his difficult progress when his ears caught the sound of a tumult behind him, rising over the shrill wailing of the winds. He halted and peered back toward the damaged building he had fled. The noises grew clearer. He could make out the yells of men and the staccato bursts of mach-pistols. In front of the building itself, vague figures seemed to move.

**T**HE PURSUIT had started, he thought with mounting urgency. Yet, there was something about the wind-muffled sounds that puzzled him—a quality of alarm, of strife. But that might have been due to some trick of the icy blasts that swept the

scene with demoniac fury.

He leaned into the winds again and resumed his laborious flight. The hangar loomed up ahead of him, and moments later he saw the softly gleaming outlines of the skimmer. He sought to quicken his reeling steps.

As he crossed the last few remaining yards that separated him from the craft, he discovered something that he had not noticed in his first casual glances. He halted, staring, a sensation of eerie wonder rushing over him.

Figures crouched along the skimmer's base, their huge shining eyes turned toward him with a steadiness that indicated they had been observing his approach—waiting for him. And even as he stared, others now moved out of hiding behind the craft, erect, grotesquely man-like, their luminously glowing fur pelts weirdly spectral in the darkness.

URSOIDS!

With a kind of flashing clarity, Ballard recalled the odd note of alarm in the sounds made by Murtree and his men. He understood the reason now. The Ursoids were attacking the ranch.

He began reaching for his mach-pistol. He realized he would be mistaken for one of Murtree's hirelings. And perhaps, before he could identify himself—

The glowing furred shapes abruptly swept toward him, moving on all fours with incredible swiftness against the savage winds. Before he could pull his weapon free, one of the Ursoids caught him about the knees. Another leaped at him from the side, momentarily imprisoning his arm. Thrust out of balance both by his attackers and the force of the winds, he went down. And then the remaining Ursoids were swarming over him with eager guttural cries.

Though smaller and lighter than

men, the Ganymedan natives were strong and quick. Ballard heaved, kicked, rolled, lashing out with fists and elbows, but the Ursoids seemed to close in again as rapidly as he was able to struggle to his knees, only to be borne down again under the superior numbers of his attackers.

The Ursoids carried wooden clubs and other crude weapons, which up to this point they had made little or no attempt to use. But now, in response to a guttural command, one of the creatures deliberately maneuvered itself behind Ballard, waited for an opportunity—and swung its club.

The nightmarish battle ended for Ballard in a sense-deadening burst of light and pain.

• **NOTHINGNESS**, blackness—and then pain again. He seemed to rise upward in a sea of pain, toward a swiftly brightening surface. Then the brightness was somehow behind his closed eyelids, imperative and commanding. He blinked. A face hovering above him now came into focus—and he found himself staring at Matt Strand.

"Awake at last, eh?" the old man growled. "That must've been quite a whack over the head you got."

Ballard realized that he was lying on a cold stone surface. He struggled to sit up, dully aware of the strange pungent odors that filled his nostrils. And then his eyes encountered another face.

Helen Strand was kneeling on the other side of him, her expression queerly anxious. As his glance met hers, she straightened startledly and drew back. She looked at first confused, then defiant. Her coverall hood was thrown back, as it had been when Ballard first saw her, but now her chestnut hair tumbled about her head in disarray.

More immediate matters claimed

Ballard's attention for the next few moments. He squeezed his eyes shut against the dull agony that throbbed in his head, each beat sending a wave of sickness through him. He discovered also that his cheeks stung and burned, as though from repeated slapping. He rubbed them and glanced at Helen Strand again.

"Have you," he asked shrewdly, "been taking your spite out on a completely unconscious and defenseless man?"

Her gray eyes flashed. "I have not!" she protested. "I wouldn't touch you with the longest pole I could handle—unless it would be to knock you out again."

"Guess I was pretty rough with you, son," Matt Strand put in. "But it seemed the only way to bring you around."

A new thought struck Ballard. He muttered, "Around...where?" His darting glance showed that he and the others were in a small stone chamber, lighted by torches that had been thrust into crevices in the rough walls. It was the torches—and something else, a lingering, familiar smell—that produced the pungent odors he had already noticed. In one wall was a rectangular opening, blocked by a flat stone. And seated against another wall were two additional occupants of the chamber. Both were Murtree's men—and one of them was Chondhas. The gaunt, dark man looked worried and morose.

"Well," Ballard said. "What are you doing here, Chondhas?"

"Trying to think of a way to be somewhere else," the other returned solemnly. "And if you're smart, Ballard, you'll start doing the same thing."

"Just where are we?" Ballard asked of no one in particular.

"In the cave village of the Ursoids, son," Matt Strand said. "The critters

are up to something, and I don't like it. I keep wishing Helen wasn't here."

"What's going on, anyway?" Ballard demanded.

MATT STRAND shook his white head. "Don't know, son. Wish I did. Bunch of the critters showed up at my homestead and grabbed me and Helen. Seemed mighty determined. Took me by surprise, too. I didn't have a gun handy, having friendly feelings for the Ursoids. It all ended up with me and Helen getting carried here on litter contraptions, sort of—blindfolded and tied hand and foot."

Helen was studying Ballard curiously. "How does it happen the Ursoids brought you here, too?"

"They raided Murtree's place," he explained. "I happened to be there."

"But what could you possibly have been doing at Keith's ranch?" Helen burst out.

Ballard grinned wryly. "You thought I was an Ursoid trapper. So did Murtree. That's why he invited me to stay at his ranch. He had a proposition to make me. Because, you see, Murtree and his hired hands have been trapping Ursoids as a highly profitable business sideline. Murtree even had important connections with a smuggling ring that operated to get the pelts off Ganymede and into the fur markets on Earth and Mars."

"That isn't true!" Helen gasped, her small face turning pale. "Keith wouldn't do such a horrible thing!"

"A lot you know about what he would or wouldn't do," Ballard snorted. He glanced at Chondhas. "Suppose you tell the lady just how sweet and noble your boss is, Chondhas. I assure you that covering up isn't going to do the slightest bit of good. Sooner or later—the Ursoids willing—you're going to get taken over by a team of psycho-technicians.

They'll get everything you know—and plenty you never thought you knew."

Chondhas swore softly, his gaunt features briefly malevolent. "So you're a government man, Ballard! And me, I had money bet that you weren't!"

"Government man!" Helen and Matt Strand said almost simultaneously.

Ballard nodded matter-of-factly. "Special investigator out of the Bureau of Alien Life, Department of Extra-Terrestrial Affairs. I was assigned to track down the shipments of Ursoid pelts from Ganymede. I found the shipments were being carried out through a well-organized smuggling ring, part of which consisted of bribed space ship officers. I caught one of them, a second mate named Kranz. Through Kranz, I got a line on Chondhas, here, and a friend of his—Sven. And through Chondhas and Sven I was led to Keith Murtree." He briefly described the sequence of events which began with the ambush of his skimmer.

"Chondhas did his best to kill me," he finished. "Only he was a bit too sure of himself. And Keith Murtree stepped in to finish the job."

CHONDHAS had resumed swearing.

"If I'd known you'd mess things up for us the way you did, Ballard, I'd have finished you off proper!"

"Yes," Ballard said gently, his eyes very steady on the gaunt man. "We have that little score to settle, Chondhas."

Chondhas looked away, his anger suddenly draining. He was silent.

"I recollect I spoke some hard words to you, son," Matt Strand told Ballard. "I'm sorry about that. I figured you for an Ursoid killer, like

Helen said you might be. You gave me a chance to shake your hand. I'd be proud to have another one."

"That includes me—though I didn't seem to get a chance at all," Helen added, her gray eyes shining. "To tell the truth, I couldn't see you as an Ursoid trapper, to begin with, which is why I became so angry with you. It seemed terribly unfair that anyone so...well, so decent-looking—" She broke off in confusion.

Ballard's grin was twisted. "This is no time to be shaking hands. We aren't out of the Asteroid Belt yet, as the saying goes. What we ought to do is find out what kind of a course the Ursoids are charting for us. And there's the question about what happened to Murtree and the others. Where is your boss, Chondhas?"

"That's what I'd like to know," the other answered sullenly. "He reached the bunkhouse a few minutes after you got out. Then the Ursoids showed up, and there was a hell of a fight. Me and One-jet, here, got hit over the head. Maybe the same thing happened to the boss and the Ursoids are keeping him someplace else. Maybe the boss had his power cut—permanent. But what's worrying me is how I end up."

Matt Strand grunted, "If you and the rest have been trapping Ursoids, you deserve to end up dead. At that, it looks to me like the critters have decided to take the law into their own hands. They never acted like this before."

Ballard rose unsteadily, his head aching, and went to the flat stone that blocked the entrance to the chamber. He thrust his weight against it without noticeable results, then applied his ear to a crevice at one edge. He heard vague sounds somewhere beyond, but these told him nothing.

FINALLY, HE returned to where the Strands were sitting. "We could move that stone in the doorway without too much trouble, but I don't suppose it would do any good. Not with a whole tribe of Ursoids on the other side. We'll just have to wait until they come after us."

He sat down again and presently fell into a low-voiced conversation with Helen and her father. Chondhas and One-jet remained silent.

Ballard found himself admiring the girl, for she had the courage to be calm in the face of whatever unpleasantness lay ahead. And she had more than mere prettiness, as her displays of spirit had already proved. Her animated words showed an intelligence and a breadth of knowledge unusual in a girl from an isolated frontier town. He was perversely glad that circumstances—threatening as they were—had thrown them together again.

After a while, silence fell. With it came a mounting tension.

Then, with startling abruptness, a grating sound rose at the chamber's entrance. The flat stone that served as a door moved slowly aside.

Ballard, who like the others had leaped to his feet, saw a group of perhaps a dozen furred shapes beyond the opening. They were barbarically adorned with bead necklaces and strips of bright cloth, and gripped clubs or stone-tipped spears. The Ursoids looked remarkably like the bears of Earth, though there was also a haunting suggestion of humanity about their slim, straight limbs and prognathous features. Their magnificent fur pelts glowed with the strange luminescence that made them so prized in the fur markets of Earth and Mars, varying in hue from pale gold to ruddy brown. The creatures exuded a penetrating, musky alien scent, which Ballard had previously



noted.

One of the Ursoids advanced slightly and moved its clawed hand in a beckoning gesture that was curiously human. The others seemed to stiffen to greater alertness.

"This," Ballard said softly, "is it. Come on, everybody."

They were led from the chamber and across the floor of a huge cavern, the distant ceiling of which was lost in shadow. Illumination came from a roughly circular pit, a couple of yards across, in the cavern's center, where a fire of some sort burned, the flames leaping a dozen feet and more into the air. The walls of the cavern were terraced like giant stairs, and along each terrace, spaced at regular intervals, were rectangular openings. These evidently led into the private dwellings of the cave village. Ursoids, young and old, stood at the edges of the terraces, peering down toward the cavern floor like spectators at an arena. The scene had both a savage grandeur and an alien bizarreness, made all the more impressive by the solemn hush that hung over it.

SET BACK several yards from the blazing pit at one point was a broad stone dais, in the middle of which was a large chair or throne, fashioned of carved rock slabs. The throne was occupied by an exotically costumed Ursoid with silver fur—evidently the chief, or ruler. A gathering of a score or more, and consisting of armed guards and other village officials, stood in a semi-circle about the Ursoid chief.

Glancing at the figures, Ballard felt an abrupt stab of surprise. For one of them was the coveralled form of a human being, an elderly man with a beard and partially bald. Beside him, Ballard heard Helen gasp.

"It's Lonesome!" she said. "Old

Lonesome Cotter!"

"Guess Lonesome found out something was going on here and came to see what it was," Matt Strand added. "Or maybe the Ursoid chief sent for him. But now we'll know what this is all about. Lonesome understands Ursoid lingo and can talk like one himself."

As they were led to within a few yards of the throne, Helen stepped forward, heedless of the guards, her eyes on Lonesome Cotter. "Lonesome!" she cried. "What does this mean? Why have we been brought here?"

The old man spoke to the chief in the guttural Ursoid tongue. Receiving a curt reply, he advanced toward the stone steps at the edge of the dais. Above the white beard his wrinkled, spare features looked gravely concerned. He nodded at Helen and her father.

"Hello, Helen. Hello, Matt. Sorry this happened to you. But it's a serious business, believe me. Unless I talk Gorruk out of it, he's going to feed the bunch of you to the sacred flame, over there." Cotter gestured toward the pit.

"But why?" Helen demanded. "What have we done?"

"Nothing, I reckon—except that as far as Gorruk knows, you and Matt have been good friends of Koth Murtree. That's enough to make Gorruk want to get rid of you. It appears Murtree and his hired hands have been trapping Ursoids on the sly—killing them to get their pelts. You can imagine how serious that is to the Ursoids—the Khagra folk, as they call themselves. It means war, where they're concerned."

COTTER SENT a speculative glance at the coldly watching Ursoid chief, then went on: "Gorruk found out his people were disappear-

ing, like they have from several other tribes on Gany. So he had scouts keep watch in the mountains, and pretty soon he found out Keith Murtree and his men were doing the dirty work. Gorruk kept close watch on Murtree after that, to see just how far the trapping went. That way, I reckon, Gorruk found out you and your father, Helen, were friends of Murtree's. And as far as Gorruk could find out, nothing was being done by other Earthmen to stop Murtree. So he decided to tackle the job himself—and make a clean sweep while he was at it."

"But Dad and I didn't know what Murtree was doing!" Helen protested. "We learned just a while ago—after this happened."

Cotter spread his hands helplessly. "I know you and Matt weren't mixed up in Murtree's trapping business, but convincing Gorruk is something else. Ursoids don't think the way we do. They can't understand that Earthmen lie to each other and cheat and hide facts. They think an Earthman's friends know everything he knows and help him in everything he does."

Matt Strand said, "Lonesome, you tell Gorruk he just can't get away with anything like this. I'm the mayor of New Olympus. That makes me a chief, too. My people won't let anything happen to me without doing something about it. The Ursoids left tracks around my homestead, and folks are going to realize they grabbed me and Helen. It'll mean worse trouble for the Ursoids than they've ever had."

"And that isn't all." Matt Strand gestured at Ballard. "Jeff Ballard, here, is a special investigator sent out by the Bureau of Alien Life. You know the kind of trouble it'll mean if anything happens to him."

"A government agent, eh?" Cotter's pale eyes gleamed eagerly at Bal-

lard. "But how did you get mixed up in this?"

Ballard explained swiftly. Cotter turned back to Gorruk, translating the information into guttural Ursoid speech.

**G**ORRUK BROKE in with questions from time to time, and finally made a brief remark. Cotter looked at Ballard, his wrinkled features sagging in despair.

"Gorruk just doesn't understand. He can't figure out why the government didn't know what Murtree was doing a long time ago, or why the government should have sent out only one man to punish him. Afraid it looks to Gorruk like the government isn't strong enough to do him any harm."

"But doesn't he understand how big the Solar System is, and how scattered Earthmen are in it?" Ballard demanded.

Cotter shook his bald head. "The Ursoids think we came from Jupiter. The Solar System doesn't have any meaning to them."

Ballard's lips tightened. "There must be something they can understand, something we can work with!"

"Gorruk's in no mood to listen to any more arguments," Cotter warned. "He's all for feeding you to the flames without wasting any more time. If you can think of something, make it quick—and good."

Ballard said abruptly, "The Ursoids must have superstitions of some sort, Cotter. A religion. What of that?"

A dim excitement struggled in the old man's eyes. "They have a religion all right. They think their pelts are a sort of ticket to the hereafter. If an Ursoid loses its pelt after death, it's like losing the chance for immortality. That's why they're so worked up over Murtree's trapping. This

religion of theirs started a long time ago, when they were a lot less civilized than they are now. The different Ursooid tribes used to raid each other for pelts, the way savages on Earth did long ago, for scalps or heads."

Ballard was leaning forward now, his rangy figure straining with tension. "Cotter—listen! Coveralls! The Ursoids must think a man's coverall is like a pelt that he can take off and put back on as he wills."

"They do! They don't understand about clothing. But what in space—"

"Cotter, talk to Gorruk! Tell him my religion is a lot like his. Tell him I consider my coverall—my pelt, that is—as sacred. Because it has the power to move even after I take it off—if I have been good. If I have been evil, it will not move. And tell Gorruk my pelt will prove whether Helen, Strand and I are friends of Murtree's. If we are, that is evil, and my pelt will not move when I take it off."

**T**HE OLD man sent an anxious glance at Gorruk, who was stirring impatiently on the throne. "But it's crazy, Ballard! You don't have a chance—"

"I know what I'm doing!" Ballard snapped. "Talk to Gorruk!"

Cotter shrugged and addressed the Ursoid chief. Gorruk's huge eyes seemed to widen with astonished interest. He spoke swiftly in his guttural tones.

Cotter nodded. "All right, Ballard. He wants to see if you can do what you say. If you don't pull it off, you'll make matters worse than they are now."

Ballard had already palmed the supersonic whistle. He stripped off his coverall, let it drop to the floor and stepped away from it. He crossed his arms and pretended to watch the garment with intense concentration.

Helen and Matt Strand were staring at him in bewilderment. The Ursoids were straining forward, their huge eyes intent on the coverall.

With a quick, inconspicuous motion, Ballard thrust the supersonic whistle between his lips. The coverall quivered on the floor, jerked to a grotesque sitting position—and rose to its full length, swaying and bobbing.

Guttural cries of amazement lifted throughout the cavern. Gorruk was suddenly on his feet, his clawed hands lifted. His voice seemed to hold awe, and a new warmth.

Cotter grinned with relief. "You did it, Ballard! You did it! Gorruk says he's convinced you aren't evil—and so no friend of Murtree's. He's letting you go, and Helen and Matt, too."

The girl turned to Ballard, her eyes glowing. "It seems Dad and I owe you a vote of thanks. If you hadn't thought of that trick of yours, we certainly would have been finished. But how did you work it?"

He explained how the supersonic whistle was able to control the Doekkler gravity field built into his coverall. Before he was quite finished, the cavern echoed to a sudden pandemonium. There was a muffled roar of sound, followed by strange, thick screams—screams evidently torn from Ursoid throats. Then, more clearly, came the staccato bursts of machipistols and the shouts of men.

"Guns—and bombs!" Cotter gasped. "Somebody's located the village!"

"Murtree!" Ballard burst out. "It has to be Murtree. He told me he had you followed, Cotter—that he had learned where the entrance was."

**T**HE OLD man groaned. "Murtree and a couple of his hired hands got away from Gorruk's raiders at the ranch. But they were on foot, and

Gorruk told me it was only a matter of time until they were brought in, too. Now—"

Ballard caught Cotter's arms, half whirled him about and pointed at the flaming pit. "Quick! Talk to Gorruk. Tell him to have his throne platform moved over the fire. In the darkness, his people will have a better chance to fight off—"

It was too late. From a broad entrance across the chamber erupted a half dozen coveralled forms, gripping mach-pistols and explosive-pellet rifles. Spreading out, they began a wary approach over the floor.

Gorruk was shouting commands. A group of his warriors swept toward the invaders, brandishing clubs and spears.

Ballard felt a swift horror. The Ursoids, he knew, wouldn't have a chance against human weapons. They were rushing to certain death.

The massacre took place too swiftly to halt. Guns swung toward the charging Ursoids, tiny bombs glittered briefly in the air. The furred shapes vanished in thunder and brilliance.

Another group, charging down from the terraces around the walls, met the same fate. Gorruk and the few Ursoids left with him were advancing to the edge of the dais as though preparing to add themselves to the slaughter, however futile it might be, somewhat like the sea captains of old who preferred to go down with their ships. There was an honor involved that rose above a mere cost of life.

Then a voice was shouting across the chamber, a voice familiar to Ballard: Murtree's. "Cotter—call them off! They don't have a chance against us. We'll kill every one of them if we have to. Tell them that."

Looking dazed by the swiftness of what had happened, Cotter turned to Gorruk, spoke quickly. The chief's answer was harsh, bitter. His huge

eyes seemed to flash. Cotter spoke again, and Gorruk's figure slumped. He sent a brief call through the cavern, then turned heavily back to his throne.

**B**ALLARD HAD the same sense of sick defeat he knew must be Gorruk's. Murtree and his cohorts were only a short distance away now, their weapons held ready. Any further efforts at resistance were out of the question.

Murtree strode up, running his eyes over Ballard and the Strands. His broad lips were curled in a hard grin of triumph.

"So everybody's here, eh?" he said jöially. "That simplifies matters a great deal."

"Murderer!" Helen spat. "I think I'd have been willing to believe anything about you, even before this. But it took what you and your killers just did to show me exactly how rotten you are."

Murtree shrugged, though his black glance was narrow and intent on the girl. "The information isn't going to do you any good, I'm afraid. And since this seems to be a time for frankness, I'll admit I never liked the way you always held me off. You've been needing to be taken down a notch or two, and I'm going to get around to it. After I settle certain other details of this business."

Matt Strand stepped forward, his features twisted with a rage that seemed compounded equally of concern and dread. "By the stars of space, Murtree, if you dare to touch Helen—"

"You're in no position to tell me what to do," Murtree snorted. "You aren't in New Olympus now. Remember that."

Matt Strand's body trembled as though he were preparing to launch himself into the face of what would

be certain death. Ballard caught the old man's arms and gently drew him back.

Chondhas and One-jet had already crossed over to join Murtree's band, part of which had been deployed about the pit to keep watch over the Ursoids in the cavern village. The two were given extra weapons, and with their addition to his forces, Murtree briefly turned away to order a change in positions. Satisfied with his improvement, then, he swung his attention back to the group near the dais.

Ballard said mildly, "I heard the Ursoids had you in a tight spot back at the ranch, Murtree. How did you manage to climb out?"

**I**NWARDLY, BALLARD was filled with a choking tension born of despair. Murtree, he sensed, was in a violent and reckless mood. The man had tasted power and would stop at nothing to strengthen his control. Somehow, Ballard thought desperately, he had to gain time. Time until—

"I was in a tight spot, all right," Murtree said, his tone suggesting an eagerness to boast. "But I used my head. New Olympus was close enough to reach with the radio in my suit, and I sent a call to the men who belonged to my outfit in town. There were a couple of others with me, and we held off the Ursoids until help came. I already knew how to find the entrance to the village, here, and the rest was easy."

Murtree's heavy features hardened. "You did pretty well yourself, Ballard. But the break you made told me just what I wanted to know. It proved you're a government man. Too bad for you. Before I'm finished, you're going to wish you'd never stuck your nose into my affairs. You might have found out plenty, but you can't do a thing to stop me.

There's a fortune in Ursoid furs here, and I'm not going to be squeamish about getting it."

Helen drew in her breath sharply. "But surely you wouldn't slaughter all the Ursoids in the village!"

"Why not?" Murtree demanded, his face sardonic. "In fact, Helen, I'm going to turn the whole village into what amounts to a fur factory."

Ballard shook his head. "You'll never get away with it."

"On the contrary, I'm quite sure I will." Murtree was coldly emphatic. "None of you are going to be in any position to make trouble for me. People are going to think the Ursoids got you. And they won't be able to do anything about it. Nobody else knows where this village is located, and I'm going to be careful to see that nobody else finds out."

Matt Strand suddenly exclaimed, "Great space, Murtree, you aren't planning to kill us, too!"

The other's dark eyes became calculatingly lidded. "I might allow you and Helen to live. Under certain conditions."

"Leave Helen out of it!" Matt Strand's voice was low and hoarse. "Leave Helen out of it, Murtree, or—" He started forward, his hands lifted.

**T**HE MUZZLE of Murtree's weapon twitched alertly, and his broad lips were suddenly flat against his teeth. Again Ballard caught Matt Strand's arms. The older man heaved and twisted in a fierce struggle that revolved them over the floor as though in the steps of a drunken dance. Finally Matt Strand quieted.

Murtree, who had been snarling commands to stop, now spoke with a grim deliberation. "I can see you're going to give me trouble, Matt. I'm going to—" He broke off, whirling startledly.

Ballard's coverall had been lying on the floor, several feet away, where he had allowed it to collapse after the demonstration he had given Gorruk. In this struggle with Matt Strand, Ballard had deliberately kicked the garment closer to Murtree and the two men who flanked him. These two were new-comers from New Olympus, and Ballard knew they would be unaware of the coverall's unusual properties. And with the confusion attending the attack by the Ursoids, it was unlikely that one of Murtree's ranch hands had informed him of the trick Ballard had employed to escape the bunkhouse. Thus, Ballard felt confident that he still had an element of surprise on his side.

The struggle had also given him the opportunity to slip the supersonic whistle into his mouth. With the attention of Murtree and the others momentarily concentrated on Matt Strand, he let the whistle project from his lips—and sent a blast of air through it.

Now, with an unexpectedness that could not have failed to be nerve-shattering, the coverall jerked erect in its boneless, swaying parody of life. Murtree and his two companions goggled in stupefaction.

That was the instant for which Ballard had been waiting. His bunched and straining muscles carried him over the floor in a frantic leap. He hit Murtree above the knees as the other belatedly swung his weapon and fired. The burst ripped ceilingward, and then both were rolling toward the edge of the flaming pit.

The abrupt flurry of action was a spark that made the cavern explode with violence. Murtree's group of underlings turned in surprise, momentarily ceasing their vigil over the hundreds of Ursoids around the walls. Their weapons swung toward Ballard, but Murtree's own body blocked their

aim. And as they hesitated, the watching Ursoids saw their opportunity. With growls that merged into an echoing roar, they swept forward in a vengeful wave—a wave that was met with a fiery hail of gunfire.

A BARE several feet short of the pit, Ballard and Murtree came to a stop. Kicking to disentangle himself from Ballard, Murtree scrambled to his knees. He lifted his pistol, steadied himself for a burst.

Ballard lunged, caught the other's wrist and twisted savagely. The weapon went bouncing over the floor. In sudden, wild rage Murtree flailed at Ballard with sledge-hammer blows, broke loose and leaped to his feet. His dark eyes glittering madly and his mouth a vicious curve, he lashed out with his metal-weighted boots, seeking to thrust Ballard, half-dazed, into the blazing depths of the pit.

The cavern was a bedlam of growls, screams and crashing guns. The Ursoid wave had momentarily broken against the fiery hail—but it could not be stopped. Murtree's cohorts were surrounded by furred bodies, dragged down, buried under a sheer weight of numbers.

Ballard felt the heat of the pit against his face. Awareness of his danger was like a chill blast that cleared his head. Bracing himself, he dodged another swing of Murtree's boot. Then his hands darted out and fastened around the still-raised ankle. He jerked violently—and Murtree, out of balance, sprawled to the floor.

The muscles of his face bleakly set, Ballard pushed himself to his feet. As Murtree furiously whipped erect, Ballard closed in with short, crushing punches. He beat down Murtree's guard, then brought up his fist in a piledriver swing that started well back of his hip and ended solidly against the other's jaw.



Murtree reeled backward, his knees buckling. For an instant he tottered at the edge of the pit, his figure outlined by the leaping flames. Then he vanished into the blazing depths.

Ballard drew a slow breath, knowing he had witnessed what might very well have been his own fate. When he turned to survey the cavern, it was to find the Ursoids already rejoicing over the battle's end.

"GORRUK'S finally seen the light," Lonesome Cotter told Ballard. The old man's beard was split by a wide grin. "He's come to understand that all Earthmen aren't like Murtree and his bunch. And I told Gorruk what you said about men like Murtree being able to trap Ursoids because they kept out of sight and made it tough for the government to help them. Gorruk says he's going to do something about that, so I guess that'll be the end of the trapping that's been going on."

Matt Strand put in, "If the Ursoids are going to open up relations with Earthmen on Ganymede, they'll need an ambassador or something like that to represent them. I have good connections with the territorial administrator in Ganyport, and I'm sure you could have the job if you wanted it, Jeff. Lonesome, here, could act as your official interpreter."

Cotter indicated quick agreement. "Now, I wouldn't mind that at all. Fact is, Jeff, the Ursoids would be willing to do just about anything you

say. After what you did, they're ready to set you up as a god."

Ballard grinned wryly. "I'd rather be just a plain human being." He glanced at Helen, beside him. She smiled, her gray eyes warm.

They were seated in a semi-circle about a banquet space that had been laid out on the cavern floor. Gorruk and the other village officials had insisted that they stay for a victory feast. They had been plied with fruits and runt-bison steaks, and now were watching a series of symbolic tribal dances around the flaming pit. Drums and wailing flutes made a background of barbaric melody.

Not all Murtree's men had perished in the fight. Four had survived, wounded in greater or less degree, and were being kept under guard. Among them were Chondhas and One-jet, who now faced the prospect of a government psycho-therapeutic rehabilitation center.

Helen became thoughtful. "What are your plans, now that all this is over with?" she asked Ballard.

"Well, I'll have to take my prisoners in to Ganyport and go through the red-tape involved. After that, I kind of think I'll return to New Olympus." He sent her an anxious glance. "You don't think that's a bad idea, do you?"

Helen's small face showed relief. "No," she said. "In fact, I'd say it was a wonderful idea!"

THE END

COMING NEXT MONTH ---

## THE WRONG SIDE OF PARADISE

By

RAYMOND F. JONES

A thrill-packed novel of adventure and intrigue in a hell which was known as Heaven!

# WHEN VENGEANCE



"That's it!" Mydor growled. "This box will give us the entire Earth as a toy!"

# RULES...

*By Charles Creighton.*



**You could say one thing for Gregor: if you crossed him up, he'd take his revenge—even if it meant blowing apart the solar system!**

**O**LD MAN Zan tapped the letter on his desk with nervous fingers. Hang the boy, he thought. First the business of washing out of Air College, then the shoddy affair with that woman in the chorus,

next those shabby and senseless gambling debts, and now this—he looked at the letter again—this being mixed up with a gang of Venusian pirates running supersonic shells from Earth to Venus.

Fortunately for young Gregor he still had influence, otherwise there would have been the devil to pay. He let his eyes come away from the letter to the tall figure slouched deep in a chair on the opposite side of the wide desk. Built like a college full-back, handsome—he had his mother's good looks—insolent-eyed, stubborn-chinned, crooked smile which might have been to show how devil-may-care he felt... A pity! There was damn good stock there. At least on the father's side.

"Gregor! What are we to do with you?" the old man asked.

"Do with me, grandfather? Why must anything be done with me?"

"Something must be done, son otherwise you'll come to no good end."

"It'll be my end, whatever it is, grandfather, and no concern of anyone's."

"But you're wrong, Gregor. This business about the Venusian pirates you've been mixed up in; why did you do it—money?"

"Partly..." Gregor Zan smiled and his face was suddenly boyish. "Mostly for the adventure, I guess."

The old man sighed. "No need to risk your life for a few dollars. You know that on my death you inherit my entire fortune and all my various enterprises, whether you want them or not, because I am determined that no one but a Zan shall rule over the empire I have created."

The smile faded from Gregor's lips. "I don't want your money. I don't believe in empires, and I wish you'd find someone else to take the damn things!"

The old man clasped his fingers, leaned across the desk and said, "How have I failed you, my boy? What haven't I done?"

"Accepted my mother," Gregor Zan said quietly. "Too late for that now. Yes, you raised me, brought me up in

the life you thought I'd follow but you forgot that I am my mother's son also. "I think you hated her, thought she was beneath my father's level because she was a small-town girl who happened to be beautiful but with no other virtue than that."

BARTON ZAN paled. "We went through this before and it gets us nowhere. You do *not* know how I felt about your mother and whatever you think is a presumption. Let us get back to why I asked you in.

"The government has paroled you in my care for the next year. I am responsible for your actions."

"The hell with that! I won't have it," Gregor said passionately.

"Space piracy can be punished by death," the old man said grimly. "There is a mandatory minimum sentence of ten years on Hagar's Planet. Would you rather take your choice of those?"

"Putting it that way, yes! I told you a couple of years ago I won't be beholden to you for anything. When I ran those shells I knew the risk I was taking, and the punishment that would follow my capture. I lost. I'll take my chances."

"Too late," Barton Zan said coldly. "The choice is no longer yours. I stand for your behavior now."

"So you think! My trial comes up this week-end. I'll plead guilty and demand sentence. They can't deny me."

"It has already been settled," the old man said in a tone of finality. "I have made arrangements for you. Monday morning you report for duty on the cargo ship, *Azure*, bound for Lineel's Planet. Perhaps on your return you will have changed some of your opinions!"

"About you, never. And if you're expecting thanks for what you've done, don't hold your breath waiting.

Good-by!"

There was bitter sadness in the old man's eyes as they stared emptily at the closed door, the glass of which was still quivering from the force of its closing....

**BAR-TOK**, the Venusian, and his brother, Yeborg, shared a cell with two others: Gremol, the Martian, and a malformed pygmy from one of the moons of Saturn. Bar-tok stood pressed against the bars of the cell, looking out into the black void of night that was eternal on Hagar's Planet. His flat green face was devoid of expression, but his thoughts were in a turmoil.

Ten years behind bars was the sentence he and Yeborg had been handed; the others, death. Five months gone by and it already seemed years. But Gregor, damn him, had gotten off with probation.

"What are you thinking, brother?" The soft, slurring speech of his native tongue sounded behind him.

"Gregor, and the others."

"A waste of time. Don't hold the boy too much in blame."

"Till I die," Bar-tok said.

"Not I. Fortune smiled at him and frowned at us."

"But ten years in this hell-hole! The thought, even, is unbearable."

"We knew the risk we took. And the punishment for being caught. Why bemoan our fate now?"

Bar-tok stepped back from the bars. "Yes," he said softly. "You're right. You've always been right, dear brother." He sighed. "Sleep comes hard, as though after a long fight. Go, I wish to dream a little."

"Dream lightly, then. Sleep will be the sweeter."

For a long time after there was no sound. Now and then the long sweep of searchlights showed the vast section of the prison area, bringing out

in frightening detail the electronic gun mounts, charged wire emplacements, and concrete pillboxes. There had never been a single instance of prison break on Hagar's Planet. There just wasn't any place to go from there, Bar-tok thought wryly. No wonder the Interplanetary Council had chosen it as a prison for space criminals....

"You'll get used to it," Gremol's whistling voice said close to his ear. "Took me three years."

"How nice for you," Bar-tok said. "But you're a Martian. We Venusians value our independence more highly."

Gremol shrugged. "An idle word, here. Like escape. Oh, you'll try it. They all do. You'll maybe even get out of the compound; some do, you know. But they always come back. I've seen the worst of them come back."

"If I ever make the break," Bar-tok promised, "I won't come back. Not of my own volition! They'll carry me back!"

Gremol was a philosopher. "An escape from nothingness into nothingness. The final escape. I always find it odd that we all of us seek death, but when we are face to face with it, we find excuses to avoid it. Freedom, even behind prison walls, is still freedom."

"Why don't you guys go the hell to sleep?" a voice snarled at them. It was the pygmy.

"One more crack like that," Bar-tok said quietly, "and I'll kick all those crooked teeth down your throat."

"Don't waste your time on him," Gremol said. "Ah, well. I love to talk. But even more, I love sleep. Good night."

"Good night, Martian," Bar-tok said, and took up his position at the bars again.



AHYOOK, the beggar, called out in his quavering voice: "Come look on my wares! Cheap, cheap. Aiye! I give them away... Priceless things of precious metals, bright bits of leather and wondrous weaves of fabric. Aiye! Cheap, cheap..."

A two-man patrol moved down the Street of Bazaars, stopping now and then to peer into a wine merchant's shop, or to watch the street peddlers in action. Presently they were beside old Ahook, squatting in the shadow of Huk's wine shop.

"Old festering sore," one of the patrol kicked lightly at the squatting figure, "what bargain do you offer?"

"Ho!" Ahook laughed harshly. "I have many things, many precious things for men of your calling."

The other man of the patrol narrowed his eyes trying to pierce the darkness that was like a tunnel into the interior of Huk's shop. "Shall we go in?" he asked.

"What is the use?" the first asked.

"These places are so many warrens."

"The man we seek might be in one of these warrens."

"I leave the choice to you."

"Ho!" Ahook held up a holster made of precious metal, with a fine filigree work lacing through it. "Look! Cheap. I give my wares away."

"The devil take you and your wares," the first man said. The kick he gave Ahook brought a groan of protest from the old man. "Come. Let's be on our way."

Ahook's voice followed them: "They seek their goods elsewhere. Aiye! Ahook's wares do not please their majesties."

HUK, THE wine merchant, shook his head until his many chins quivered like jelly. "He is clever, the old one. Do not fear, my friend, the patrol will not enter."

"A pity," Mydor, the Venusian, said lightly. "I would have liked testing their taste for battle."

Huk believed him. There was something about the gigantic green figure, something in the cruel mouth and eyes that said this man had no conception of fear.

"Perhaps later," Huk suggested.

Mydor snorted contemptuously. "Piddling Lineeans. I'm for larger game." His hazel eyes took on a far-away expression. "Out there in space is a planet made for a man of destiny. It hangs there like an overripe fruit, waiting for the right man to come along and shake it from the bough."

Huk took a long pull at the wine flask and wiped his mouth with a hairy forearm. "I like small game—no risk."

Mydor's smile raked the other with its contempt. "I have the weapon which makes all things equal. My problem, as you know, is getting to it. They said no man could escape Hagar's Planet. I did. But I had to leave my little..." He leaned forward slightly. "...My little *box* behind. Now to business. You say the *Azure* docks today?"

"Yes. Some time this morning. Its next and last port of call is the prison planet."

"Perfect! You will see to it that we become members of the crew."

The gross body opposite the gigantic green figure squirmed. "My Venusian friend," Huk began, "I find fear gnaws at my entrails at the thought of action. What you plan is too large, too awesome for such as I."

"Pfaw! You stink with fear. But the profits, man! Earth is a prize worth any risk. I tell you it will fall like that overripe fruit I mentioned. It will fall—or be destroyed. Like this." Mydor's fingers closed on a hard-shelled nut and crushed it to pulp.



Huk found yet another objection. He was a cautious man, a frightened man, but above all a greedy man. "Where will you get the men—the ships?"

"The men are waiting. Up there on the prison world. The scum of space: Murderers, pirates, killers. Five thousand of them. Ships? The *Azure* will do for a beginning. I need no slick destroyer for my work. A tramp space freighter will do. You will find there will be enough ships for us, more than we need. A month on that horror world up there and men grow to hate their mothers. I will feed that hatred.

"Now! Let there be no slip-up. We must board the *Azure*, and we must be sure there are enough of us to take over."

Huk sighed. Misery drew frightened lines in his face. "Your compatriots will come here, their tongues hanging for my wine. I know their leader well. He would cut his brother's throat for a piece of silver."

"I will give him that silver, and more throats than he can cut in a lifetime. Now I am drowsy. Wake me on their arrival."

GREGOR ZAN watched the pilot ease the *Azure* into the slip. But Gregor's eyes did not see what was going on. They were blank. He stood alone, a strong figure bent against the wind; his face seemed chiseled from marble. The five months he had spent on the *Azure* had not softened him, but had hardened his dislike of his grandfather into hatred. Nor had the crew above decks helped in the matter. From the skipper to the rawest ensign, all had treated him as a pariah. Only the back gang, those oil-stained men below decks, they and the *stevós*, the freight handlers, found him to their liking.

Men like Ho-nan, the Venusian, in

charge of the crew below decks.

A voice purred beside him. "Tonight, Gregor, we get drunk. Ho! There is one in this town—Huk, the wine merchant—who has that which makes a flame kindle and grow in a man's heart. I sing and cry and flail about with my fists, and then, in the morning, the skipper has to bail us out of jail. Sometimes I think coming here is the only reason I keep signing up."

"Maybe you have an idea there, Ho-nan," Gregor said. "I think maybe that's what I need: A drunk and a fight. I'll see you on the dock, soon as we make fast."

"An hour at the mbst. On the dock, then...."

THERE were ten of them, nine gigantic Venusians, and the Earthman, Gregor Zan. They swaggered along the narrow streets, jostling the passers-by, ogling the women, jesting coarsely with one and all, bent for the wine shop of Huk, on the Street of Bazaars.

Huk, himself, greeted them. He grinned widely as they swaggered into the low room, and said: "By my eyes! Ho-nan! They did not tell me the *Azure* was docking today."

"Well, it has, my fat friend. And with it docked the biggest thirst in history. Five months of it. Come, fat one, bring your largest flasks to our table, send the women in. We haven't a lifetime at this, you know."

The wine was heady, the women willing, and shortly the place was in an uproar. Of them all, Gregor was the loudest, most ready to fight. He swaggered the length of the room, a woman on one arm, the fingers of his right hand clutching the neck of a flask. "Damn you all! Lice. Sitting there with your fat faces staring at us. Hey, Ho-nan! Look at these miserable lice..."

The woman, a pale Martian whose yellow hair cascaded to her shoulders, skinny as the rest of her kind, knew only a single English word. "Money, money, money."

"...That fat one there." Gregor staggered, recovered and stood spread-legged before a table at which sat five Lineeleans, stocky men, bull-necked, and as drunk as Gregor. "He reminds me of a fat slug I once squelched. Like this..."

He shoved the woman from him and lurched forward before those at the table knew his intent. Grasping the one he had pointed out, by the throat, he lifted him from the stool on which he sat. The others came at Gregor from all sides.

A second later Ho-nan and the others from the *Azure* came to Gregor's aid. Men fought, cursed, screamed, used whatever weapon came to hand, while Huk standing on a table at the far end of the room, called damnation down on one and all and shouted for help.

There was one, however, who seemed unmoved by what was going on. He sat at a table and watched through drowsy lids. Now and then a smile came to his lips, and once, as Ho-nan pounced on a couple of slow Lineeleans and cracked their heads together, he laughed aloud.

Mydor was enjoying himself.

But Huk was not. For one thing, his shop was being torn to shreds, his wine spilled without profit. And for another, these men from the freighter were the ones he was going to make use of. The Earthman they had brought with them. He was the one responsible. Damn him!

He stopped his screaming and looking down, caught Mydor's smile. "Stop that Earthman, Mydor!" he shouted. "We'll have a patrol in here if this keeps up."

The smile vanished from the Venu-

sian's lips. Patrols were something he had no wish to see now. He moved with the grace of a dancer and the speed of a runner. His fists lashed out, caught a man here, sent him spinning, caught another there and knocked him in a heap, and finally he was looking at Gregor Zan.

The Earthman had caught a fist in one eye and it was starting to close. A flask had broken against his skull cutting him along the jaw. But Gregor was having more fun than he'd had in a long time. Each time his fist caught someone it was as though he was hitting at the man he hated—Barton Zan. Hitting at the old man and all he stood for.

He looked up suddenly, saw the expressionless mask of a green face above his own did not recognize it, and threw a fist into it. The face went away from him and when it returned twin streams of blood flowed from the wide nostrils. Gregor threw another fist at it. Only this time it wasn't where it should have been.

Something exploded against his head, there were comets with flaming tails, stars whirling in a mad dance, then, utter darkness....

HE OPENED his eyes to the same darkness. He winced in pain as he lifted his head. His hand went up and it seemed the fingers were a foot from his head, so swollen did it feel.

He took his hand away from his head. Even the touch of his fingers was painful.

"Take it easy, lad," a voice said. "You'll be all right."

"Ho-nan?"

"Yeah. Nice brawl, eh, Gregor?"

"Nice brawl," Gregor sighed. "Very. What happened to me? My head feels the size of a balloon."

"You tangled with the wrong man..."

"He'll be all right," a strange voice

broke in. "Turn on a light, Ho-nan. Let's have a look at each other."

Gregor blinked in the sudden glare. His eyes went wide in surprise, however, when he brought them into focus. The entire below-decks gang was in the room, and with them, Huk, the wine merchant, and a stranger, a Venusian. He looked anxiously at the green man. He was impressed by what he saw, but even more impressed by the sudden overwhelming feeling of latent power and intellect thrown off by this green giant."

"Ho-nan tells me you ran shells from Earth to Venus and got caught. How is it you're not on the prison planet?"

"What business is it of yours?" Gregor's anger ever on tap, swelled over the small dam of restraint.

"Ho-nan also tells me you hate this relative of yours. Again, is he right?"

Memory stirred faintly in Gregor. This man's lips looked puffed and there was no missing the swelling of the nose. This was the man he had slugged before everything had gone black. Gregor bounded from the bunk and straight at the other. But the others pulled him down before he reached Mydor.

"Let me go!" Gregor demanded. "This guy put the slug on me. I'll kill him!"

"I don't think so," Mydor said gently. "Maybe you'll change your mind when you hear what I have to say. I want men who can hate. Hate steels a man's heart and arm and hardens courage. How strong is this hate of yours?"

"Enough to ruin him, kill him, as he killed my mother."

"Enough to destroy the planet he lives on, if need be?"

"Yes!" Gregor knew suddenly that he did hate his grandfather that much. He *would* destroy the Earth if he could take Barton Zan to death with

it. He wondered why he had not attempted to murder the old man before.

"Good! Ho-nan tells me those above think you a pariah, a traitor. I know how you feel. I too was thought a traitor. Perhaps you do not know of me. I am Mydor. Fifteen years ago, I plotted a space war. They caught me and sent me to Hagar's Planet, a life sentence at hard labor. They told me no one had ever escaped from that hell-place. I did. Now I return. Will you join me?"

Gregor looked about at the faces staring into his own. Green Venusian faces, pale Martian faces, the bearded white ones of Earthmen, and here and there gargoylish faces from half a dozen other planets. They had one thing in common. Hate! Their hate stared at him with unmistakable impact.

Well, he hated, too. His eyes met the ones of Mydor. "Yes. I'm with you."

"Good! How many officers are there on the *Azure*?"

"Ten."

"The only one we must silence quickly is the radio man. Here, Earthman, is a knife. See to it that he sends no messages. In the meantime we will take care of the others."

"Just a second, Mydor." Gregor halted the flow of words. "You make it sound easy. Suppose you give us the details of this deal? I don't see how taking this old tub over and going to Hagar's Planet will give you this terrible power you speak of."

**T**HERE were murmurs of dissent and here and there a voice demanded action and less talk, but silence fell as Mydor lifted his hand.

"The Earthman is right! I want blind obedience, but this once I will explain. I was a scientist on Venus and on the threshold of a great dis-

covery when my plans and plot were discovered. I did not think my experiment would be worked out in a prison cell. But it was, and that is why we must go to Hagar's Planet. As to the use of this ship, it is one of the few space ships still having ordinary electrical-powered emergency engines. We can land anywhere in silence, undetected.

"As to this power I possess, without going into detail, it is simply the power of vibration. Strike a musical note kindred in vibration to that of a piece of glass and the glass shatters. So it is with all matter. Buried in a swamp on that tiny planet is a square box. Within that box, ready to be let loose are vibrations which could destroy all matter. Gravity alone makes it work. Being a wave, anything material would draw it, bend it completely around the material thing. Ships would fly to bits, guns would crumble to metallic dust, humans to less than dust, if each thing was subjected to its vibration wave length. As to Hagar's Planet, there are five thousand men I can find use for in that prison, and a dozen swift destroyers to house those men. Does that answer your question?"

"But how do we land undetected? How do we free the men?" Gregor persisted.

"Hagar's Planet is really an asteroid. It is not part of a solar system, therefore it does not receive light, reflected or otherwise. There is a complex system of electronically controlled searchlights which cover almost the entire sphere. I say *almost*. My little tool is buried where no lights reach. Now these lights work on the attuned sound principle. Receivers within the lights pick up the sounds of rockets or jets, the sound is conveyed to the gun mounts attached to the lights, which by the way can reach for fifty miles into the sky,

and at the press of a button, boom! But these lights and their sound-pick-ups are not attuned to electrical motors since those were considered obsolete. That is why I want the *Azure*, my Earth friend."

"To say you're clever wouldn't do you justice, Mydor," Gregor said.

"Well, suppose we get on with what we have to do?" Mydor suggested.

Gregor gave the Venusian a mock salute and turned toward the door. "Give me five minutes..."

AS MANY men as could crowd within the cabin did so, while the rest filled the companionway. At the desk on which the box stood were Mydor, Gregor, Ho-nan and Huk.

It was the box itself which held the motley crew's attention. Black metal, about three feet in height and slightly more in depth and width, it seemed to squat there on the table's polished surface, a thing of evil, an instrument from Hell's foundations. Traces of dirt and mold still clung to its sides, mute evidence that only recently had it been brought out from its hiding place beneath the surface of Hagar's Planet. For Mydor's plans had gone through without semblance of a hitch. Within a few hours after he and his minions had captured the *Azure*, a secret landing had been made on the prison world and the box unearthed.

Mydor flipped the catch and threw back the lid to reveal the dial-pocked face of his invention. His hand caressed each dial as his lips parted in a slow smile.

"The prison guards were stupid," Mydor said softly. "I asked permission to build an ultra-short wave radio and they let me. It was a simple matter to take more parts than the radio needed. I built the radio and this. They knew only of the radio. Well, soon they and the rest of the universe will know of this. Now to

work. How high are we, Gregor?"

"Sixty thousand feet."

"Good. A matter of seconds and everything of metal will be destroyed below. Watch." He flicked a tiny switch and blue light flamed for an instant under one of the dials, then died. But now all dials were illuminated. Mydor watched them intently as the seconds dragged by. Suddenly his finger stabbed out and depressed the switch. "Done. Descend to a hundred feet and use the outside audio system. Tell the prisoners to break out and kill the guards. We will land later."

"But if all things of metal have been disintegrated," Gregor asked, "what about the destroyers themselves?"

"I directed the path of the wave at the prison itself. The flying personnel live within the prison quarters."

"You don't miss a trick," Gregor said with grudging admiration.

"I learned not to; fifteen years in prison taught me the results of carelessness."

"What do we do with our prisoners?" Gregor asked.

"I don't believe in taking prisoners," Mydor said shortly. The green face took on a bland expression. "Huk, that's the sort of work you like, sticking a blade into a helpless man. I'll leave it to you."

Gregor found himself gulping. It was one thing to fight a man with fists or weapons, one against another, but this business of killing helpless men was something else again. He remembered how he had found it impossible to kill the radio man when the other was at his mercy. Fortunately, the poor devil had no taste for violence. Gregor forced back a sudden nausea. For the first time in a very long time he began to think clearly. What had he made himself part of? Had his blind hatred of an

old man brought on a kind of delirium? He gave Mydor a sidelong look and caught the other's eyes suddenly on him. There were reflective lights in those hazel depths. Had Mydor read his mind...?

"There will never be the bother of prisoners for us," Mydor said. "Always keep that in mind. We are a handful facing the billions of a planet. When we have conquered them, it will be another story. Till then..."

"I understand." Gregor forced himself to smile.

**B**AR-TOK continued to stare into the night. Something must have happened to the lights. They were out. He blinked suddenly. It seemed to him a shower of dust had cascaded before his eyes. Again he blinked. He could have sworn there were no longer bars before his windows. His hands went out.

Out into the night wind...

"Yeborg, Gremoll!" he shouted.

They leaped from their beds, bewildered, their eyes still fogged with sleep.

"Something's happened. There are no bars on the windows!"

"Nor on the doors," came the suddenly shrill sound from where the malformed pygmy lay. They heard the rustle of his body, then saw him scuttle into the corridor.

Seconds later they heard the booming voice of Ho-nan: "You're free below! They can't stop you! Kill them all!"

There were four hundred men guarding five thousand prisoners. In the twinkling of an eye the odds which had been on the prison warders' side had changed. Now it was many against one, fist, teeth, feet, kill or be killed.

Five thousand men went mad...

When the blood bath was over, not a single prison guard or member of

the destroyers' crews remained alive. And all the time the slaughter went on, Ho-nan's voice urged them to greater killing. Now they could see the spaceship itself, for Mydor ordered every landing light along the rusted belly turned on. It hung suspended, like a great white cigar, a hundred feet above the prison compound.

A new voice greeted them. "This is Mydor. Perhaps some of you remember me..." Mydor waited until the shouts of greeting died. "I have returned to lead you on a path of vengeance. Are you ready?"

Their shouts filled the air with deafening sound.

"Good! They taught us to hate, now we will show them how well we have learned our lesson."

Again the crescendo of voices.

"There are a dozen destroyers lying along the edge of the swamp. Man them. Tune your radios to ours. I will give you your instructions then."

"**T**HINK OF it," Mydor said lightly. "Ten thousand ships against our tiny fleet!"

Huk's belly shook in silent laughter. Ho-nan also laughed, though its notes held a tinge of fear. Ten thousand ships! He stopped laughing and blew out his breath. They would darken the sky! Only Gregor found it not the time for laughter.

Gregor had not laughed in a long time, now. Nor even smiled. He thought back to the prison break, and what had followed immediately afterward. They had flown in what seemed aimless circles for a week, always, however, out of the path of space ships and away from any inhabited planet. Two weeks, and Mydor had accomplished his purpose, to make enough disintegrator sets to equip his entire fleet.

Then he set to work. First Lineel's

Planet. The tiny planet had given additional proof to Mydor that his theory of vibration radiation would work. For the whole of one night he sent his fleet in a circle about the small planet, spraying it with the various vibrations that were designed to effect metal, stone, flesh, and vegetable matter. When they were done with their work, there was only the dust of a planet left in the sky...

They flew to other planets perfecting their knowledge and handling of the terror weapon they possessed. And now they were ready for their prize.

A thousand miles below, the Earth spun, a green and silver ball whirling in the light of the moonglow. Gregor looked at it and felt a horror such as he had never imagined sheath him in its terror. He was one of this crew, as responsible for the deaths of millions of innocent beings as any man of Mydor's minions.

"I have always loved seeing the Earth from this height," Yeborg's gentle voice roused Gregor from his reverie. "It would be a pity were it never to be seen again."

"What do you mean?"

Yeborg met his eyes for an instant, then turned his face aside. "It was an Earth tribunal which sent Mydor to prison. He hates the Earth and its people more than—"

"I know that, Yeborg. What did you mean '...pity if it were never seen again...?'"

"I am a Venusian, an ugliness of gigantic stature. Things of beauty have always attracted me. Sometimes things of beauty do not endure. I would be the last to hasten their death."

Was this man telling him he would rebel against Mydor? Could he risk plain talk, or would it be better to couch it in ambiguous words? Sweat broke out on Gregor's brow. He knew he was risking his life.



Yeborg was going out of his way to be friendly. Was it a trap?

"...They are rash, eh?" Mydor continued, his voice booming out over the ship's intercom system.

Gregor realized suddenly he had missed a great deal of what their leader had been saying. He listened with half an ear, ready to take up where Yeborg had left off.

"We will use plan A-1. Ten thousand ships! Amazing. They will make a pretty sight—for how long, my friends, before they become dust? I wanted them to do this. Destroy their air fleet, then their ground forces, and last, if need be, their whole damned planet! But I think not. Well, to work—or rather, to play! Send out the orders, Ho-nan!"

Yeborg was Gregor's partner on the spotter's range. They walked to their post together, side by side. Not a single word passed between them. The door closed on them and they correlated their instruments to the lead-in panel.

Suddenly Yeborg said, "Huk told me something the other day which might interest you."

"Well?"

"Mydor intends sending the both of us to talk peace terms to the nations of the Earth, after he has destroyed their military might."

Gregor Zan went rigid. Could this mean a way out for him?

Yeborg went on: "He thought you might like to see your grandfather, that you would have the chance to settle your score with him in any way you saw fit."

"Then why is he sending you?"

"To keep an eye on you," came the calm reply. "My brother hates you and I am afraid will never leave off hating you. Two of his dearest friends were sentenced to death. I've tried time and time again to change his mind, but it's quite hopeless."

"They were your friends, also," Gregor said.

"We were *all* friends," Yeborg reminded him. "All of us seeking adventure, all of us knowing and laughing at the risk we took. It turned out badly for us."

"You mean you don't hate me?"

Again Yeborg glanced out of the glass into the dark velvet of the night. "Hate has led to this," he said softly. "I never want to hear the word again."

There was no longer any question of where Yeborg stood. Gregor knew the Martian would join him in revolt.

"It was Bar-tok who placed the bug in Mydor's ear," Yeborg went on after a short silence. "He thought it clever to suggest *me* as your companion. He knew you would never suspect me as being a spy set to watch your movements."

"But he's your brother."

"There are many down there—sisters, wives, mothers, fathers, children. He is but one. Do I make sense, Gregor?"

"The kind of sense I've been trying to make for myself for a long time, Yeborg. I've been scared to death since this began. Now I'm not. So many things seem clear. Grandfather didn't hate my mother. Oh, he didn't understand her, or even try to, for that matter; but he didn't hate her. I think he even loved her." He stopped, suddenly conscious that he was saying aloud what had been in his mind for weeks. Yeborg's hazel eyes were searching his with an understanding light. "Mind if I talk this out?"

Yeborg shook his head.

"My mother was beautiful. Father was born to the zeal of the Zan mission, to create a vast Empire. Unfortunately he was weak, but his love for my mother was strong. She died

shortly after my birth, and not too long after, he followed—a suicide. Grandfather Zan brought me up. He always spoke of my father, never of my mother. I somewhere, somehow, got the impression he hated her. So—I hated him—wanted nothing more than to destroy him. Now perhaps I will get the chance to turn the tables, to save him and the world of my people.”

Silently the Martian extended a hand and an unvoiced past was sealed...

**THEY WATCHED** the pinpoints on their screen grow until the shapes of the ships were clear. The sight was enough to fill the soul with awe. Earth had ten thousand ships to send against Mydor. They had been sent...

Yeborg indicated the lead-in panel. Gregor nodded. He threw his switch, saw Yeborg also throw his, and soon the panel showed the familiar blue light.

“On range,” Yeborg called.

“On range,” Gregor echoed.

“Fire,” Yeborg said, and depressed his switch.

Gregor followed suit.

The screen was empty now. Or was that a film of dust clouding the darkness with metallic light...?

Mydor's voice filled the room: “Good work! Cease fire. The enemy ships are no more. Now, section two of plan A-1. Stay at your posts while I contact Earth...”

They knew exactly what he was going to say. Mydor had said aloud time and time again the message he would deliver to the nations of the Earth when the opportunity came. The minutes crawled by. Then once more, Mydor's voice:

“Yeborg! Gregor! They await your arrival. I am sending a messenger with my terms. Take your ship down

and while you are on Earth, Ho-nan will join you and make sure things move according to plan.”

Yeborg handed the microphone to Gregor. “Ho-nan will point out the futility of that, sir,” Gregor said. “I am willing to take a chance, and Yeborg is also, he tells me. Give us the word, sir.”

“Very well. Just as soon as a place of meeting has been appointed. Stay on post till then.”

**THE BLACKNESS** took shape, became green meadows, broad fields, checkerboards of planted things. “There!” Gregor wasn't conscious of the catch in his voice. “Chicago!”

It spread before them, the largest city in the world. The ship descended, touched ground, waited poised until the two men alighted, then took swift wing again, to stay motionless ten miles above the Earth, a symbol of terrible power and destruction to the frightened people below.

A dozen men surrounded Gregor and Yeborg, made a path for them through the throng which pressed in on all sides. It was a silent, hating throng, and a frightened one. A car stood just outside the port. Now they saw the hundreds of uniformed men standing between them and the crowd. They followed the guards assigned them into the car and were whisked to an office building in the heart of the Loop.

“Gordon Jankins, the ambassador chosen to represent the Earth, is awaiting you,” a frock-coated man said.

Gregor Zan felt the eyes. They buried their hatred of him deep in his body. Those eyes would kill him if they had the power. There were some twenty men in the room to which he and Yeborg had been ushered. These were the representatives of all the na-

tions on Earth, sent to Chicago by their governments. Now they were all gathered, like pall bearers at a funeral.

Jankins was a tall man, stooped, with a face that was lined and weary. His voice was low, hesitant, as though the enormity of this situation had just struck home. He motioned for them to take chairs.

"I do not wish to know your names," he began. "Nor do I wish to know the name of the man who has sent you here. I will make this brief, honor the truce, and send you back. I see you have the terms of our surrender with you. There will be no need to bring their wording into the light. I have only this to say, with the concurrence of *all* my colleagues. This being who has the power to destroy us can do so if he desires. Say only this to him: We will fight him to our last man, woman and child, until we are as the dust he made of our spaceships."

"No, we will not take that message to him," Gregor said. "It will mean instant death, not only to humanity, but to the planet as well."

Jankins' eyes narrowed with the first words. A question trembled unspoken on his lips.

"There is but one chance," Gregor went on. "If we fail, it will be in spite of our trying. I ask but a single favor, sir."

Jankins seemed shocked beyond belief. "Favor... I don't understand."

"My grandfather is Barton Zan. Should things turn otherwise, and I am not able to return, tell him I was wrong. Tell him that I understand, that I love him."

"You mean," Jankins faltered, "that you and your friend are going to attempt to save the Earth?"

"Yes. Please say nothing. Our ships' viewsopes can see the crowd on the port apron. Those faces must

show their hatred of us to the millions of Mydor. Do you understand what I'm getting at, sir?"

"Perfectly!" Jankins said, and the miracle of hope was suddenly in his voice...

"**H**OW DID it go?" Ho-nan asked as they stepped into the pilot's compartment.

"How did you think it would go?" Gregor sounded bored. "They accepted without reservation."

"What else *could* they do?" Ho-nan said. "Well, let's take the ship in."

"You've worked enough. I'll bring her in." Gregor shoved gently at the green giant.

"Sorry, Gregor. Mydor's orders. He wants me to bring her into the formation."

"Well damn him!" Gregor pretended anger.

Ho-nan was quick to defend himself. "Don't blame me."

"We're loyal enough for him to send 'as peace messengers, but not trustworthy enough to—"

"He didn't say anything about Yeborg," Ho-nan amended.

"The hell he didn't!"

"I swear it. Here, Yeborg, take the wheel."

"Thanks, Ho-nan," Yeborg said softly. He moved into the pilot's seat and began to maneuver the ship.

"I'm going in to radio to tell Mydor you're taking her in," Ho-nan said and walked out.

"Better get to him before he does," Yeborg said reflectively. "Mydor might play it safe and order him to get back to the wheel."

"How would he be playing it safe? And what difference does it make? We have five minutes in which to plan our little drama. There is but one thing to consider—the destruction of Mydor's fleet."

Silence fell between them. Out of

It came a sudden exclamation.

"Whatever the reason, Mydor doesn't want you at the wheel!" Yeborg's voice was hoarse in excitement. "Good! It would be a simple matter for you to go to the firing compartment."

"Unless Ho-nan has orders to keep me out of there also," Gregor said thoughtfully. "After all, the only damage I could do would have its origin in that room."

"Then we know exactly where we stand!" Yeborg said. His eyes took on a savage glint. "Hold it! He's coming. I'll follow whatever lead you give."

"Well," Ho-nan said lightly, "it looks like there's nothing more to worry about."

"You're right about that," Gregor said. "Guess I'll check the instruments in the firing room."

The smile faded from Ho-nan's thick lips. "Sorry, Gregor! You can't."

"No? Why not?"

"Mydor's orders."

Gregor stood next to Ho-nan, who was almost at Yeborg's shoulder. Gregor noticed the gun in Ho-nan's holster for the first time, and saw how close Ho-nan's hand was to it. So Mydor had given orders to kill him if necessary. That seemed obvious.

"You mean you'd pull a gun on me?" he asked.

"Only if you tried something foolish."

"Like trying to jump you?"

Ho-nan took two steps toward Gregor and bent in a slight crouch, his right hand on the butt of the gun. Now he had his back to Yeborg. He didn't see Yeborg set the automatic pilot, then turn and slide from his seat.

"You wouldn't want to do that, Gregor," Ho-nan warned.

"No," Gregor Zan was smiling. "I

wouldn't..."

Ho-nan choked, gagged, then fell limply forward as Yeborg's stiffened hand caught him a terrible blow at the back of the neck. In a flash Gregor was at Ho-nan's side and a second later the gun was out of the green man's holster and in Gregor's palm.

"Got it! What next—and how much time have we?"

"Not much. Give me that gun."

"Why?" Gregor stared in surprise.

Yeborg nodded at the unconscious man. "He mustn't come to."

Gregor handed the gun over without further talk. He jerked as the thing went off with a tinny, popping sound, then followed Yeborg from the room. Neither looked at the grisly thing on the floor.

"First thing we do is wreck the radio," Gregor said as he took the lead. "By the time Mydor wakes up to what's happened it will be too late. You'll have to get the operator out of there."

"You won't get cold feet this time," Yeborg said. "I can see that."

"No," Gregor said heavily. "Too late for regrets now."

IT WAS over in a second. The operator died without even a whimper. Seconds later the transmitter was a mass of wreckage. Then they were moving swiftly, one toward the pilot's compartment, the other to the firing room.

Gregor Zan adjusted the head set, cleared the mike and whistled into it. Yeborg's voice came in, calm and clear: "Twenty miles at zero."

Gregor took a last pull at the safety belt, bent over the window scope and placed his fingers on the switch-trigger.

"Fifteen miles at zero," Yeborg said.

There they were, ahead. Now they

were no longer in a wheel formation. Gregor smiled grimly. That was good. Yeborg was diving straight in on them. Gregor knew how slim was their chance of survival, but the chances would be greater if surprise was complete.

"Ten miles at zero..."

His finger stiffened against the switch. As if by magic four of the destroyers directly in the path of their diving ship vanished in puffs of shimmering metallic dust. Seven to go. And now Yeborg was no longer directing the ship in a straight line. Gregor snapped against the back of his seat so hard it almost knocked the wind from him.

"Fire at will, Gregor," Yeborg's voice came in. It was still calm, still steady.

Now the remaining ships were only a couple of miles away. Gregor, watching narrowly in order to anticipate any maneuvers, saw the ships separate. But not before two more vanished.

"Five more," he whispered aloud.

"Try to get Mydor's ship!" Yeborg's voice came in again. It was no longer calm. "They'll run for it if you do."

"Bar-tok! He's on it; he's the pilot!" Gregor said. He caught a quick glimpse of a ship to the port side as Yeborg heeled their ship over in a sudden maneuver. His fingers stiffened on the switch, then relaxed as the ship vanished. He didn't know whether he had hit it or not.

"Get Mydor's ship!" Yeborg's voice was calm again. Too calm.

Gregor Zane knew the love Yeborg bore for his brother. But greater even than that love was Yeborg's compassion for the helpless beings of Earth.

"I'll try," Gregor said.

His fingers were no longer relaxed. They held the switch down in constant pressure. Yeborg was spinning

their ship about, twisting here and there in the darkness of space, with wild turns, sudden spins, diving in sometimes almost to the point of collision. He knew it was the only way by which they could escape annihilation. And all the time he kept boring in close, where the vibration rays would not hit them. Both Gregor and Yeborg knew the rays were most effective at long range, where they were spread to embrace a larger area.

Gregor counted the ships that were left. Three. When had he hit the others? Suddenly his heart stood still. They seemed to be losing speed.

"Yeborg! What's wrong?"

"We've been hit somewhere astern. I think a couple of jets went out."

Gregor swallowed hard. Luck hadn't deserted them completely. They had passed through or had been hit by the edge of a beam. Just enough to damage the ship but not enough to destroy it.

A huge shape loomed directly ahead and his fingers moved in swift reflex. They sped right on through the curtain of metallic dust. Two to go...

"Getting hard to control," Yeborg's voice was strained, as though the muscular effort he was putting out was affecting his voice. "I'm crashing us into Mydor."

Bar-tok, at the controls of Mydor's ship, saw that the renegade ship would soon be a sitting mark, ready to be picked off at his leisure. Well, it had been a hell of a good fight. Gregor and Yeborg had evened the odds to two to one, but now the fight was over. They had to die in either case unless, of course, they managed to bring their ship to Earth.

"Run from them," Mydor's voice was steel-hard over his shoulder. "They're crippled and can't fly even. When we get far enough from them we'll give them the full force of the

ray."

Bar-tok said nothing but continued to stare straight ahead. He felt the pressure of Mydor's fingers on his shoulder. "It's tough that your brother turned against us. But we can't think of that, now. I ordered the other ship to stay close in order to keep them busy."

"You mean we blast anyway? They'll catch the ray also."

"I know. When this is over I'll order the *Azure* flown out with the parts I'll need and we'll equip a whole squadron of ships."

Bar-tok nodded. Soon Yeborg would be less than dust. He swallowed hard. Why had Yeborg committed himself to this? What possessed him? The fool!

Or was it he himself who was the fool?

He blinked suddenly. There was but a single ship to be seen. He held his breath, releasing it only when he saw that the remaining ship was the one on which his brother rode. Bar-tok's face became still. He was far enough away from the other ship to use the ray now. A small smile played about his heavy lips as his hand went up to the microphone, tore it from its cord and slammed it

against the instrument panel.

Mydor screamed as though in pain. But it was a sound of madness. Too late he had divined what Bar-tok had in mind. And too late to stop the other from putting the throttle to full speed when the nose of the ship pointed straight down to Earth. Then Mydor's fingers were about Bar-tok's throat, strangling the life from it.

**T**HE SHIP went by so swiftly it was like the shadow of a shadow. Seconds later Gregor saw it in its entirety. He wondered if Bar-tok had gone mad. The fool was sending his ship straight down to Earth. He'd better change his course soon...

It was just a pinpoint of flame, extinguished almost as soon as it was seen.

"He came to his senses in time," Yeborg said proudly. "The only way out."

"How about us?" Gregor asked.

"Yes, I suppose it's time to think about our safety, now. We'll manage, on two jets and a prayer. Come on up and watch the Earth meet us. The most beautiful thing you'll ever see..."

THE END

## ONE MAN'S EPITAPH . . .

AN "AMAZING" VIGNETTE

**I**N THE control room of the *Tellus IV* the Junior Executive Officer took one look at the panel of instruments before him. With a wild dive he reached for a phone.

"Exec Two," he barked into the phone, "Pile Four is fusing—will you come to the bridge at once, sir?"

"Right!" The sleepy Captain's voice changed into fear and Lowry could hear the rapid intake of breath and the muttered curse.

"What's up?" the Navigation Officer asked Lowry.

"The Number Four Pile is fusing, Johnny—and the automatic cutouts aren't throwing it out. We'll be a torch in an

hour!"

The control door flung open and the half-dressed Captain Bainbridge tore in, shouting questions. One look at the control board was enough. He grabbed for the phone quickly and called engineering.

"Where's Blake?" he blasted into the speaker. "Get that fool up here—our tail section will be going up in radiation—"

He stopped abruptly as the assistant's voice said mildly, "Engineer Blake is in the air-lock with tools right now, sir."

Bainbridge turned toward the Junior Executive Officer. "Oh, my God!" he said dully, "Blake is going *otherside*!"

"You mean he's going behind the shield!" The Executive Officer's eyes re-



flected the Captain's fear.

"Pick him up on the induction phone," Bainbridge ordered.

On the video they watched the tiny figure crawling slowly along the massive hulk of the ship toward the stern, past the red line that marked the limits of the radiation shield for the atomic engines. His suit was laden with the tools of his trade.

"Blake!" Bainbridge spoke into the phone. "What the devil are you doing, man. You're in the heat now. Come back here while we figure some way to knock out Pile Four."

The calm voice of Blake came back: "Sorry, Captain, there's no use fooling ourselves. I've got to cut out four with a torch and seal the valves. You know there's no other way. The automatics are out, too. This is strictly an engineer's job. I'm not going to talk any more Captain—my personal effects are in order—you know what to do. I'm going to flip into the jets when I'm through."

Captain Bainbridge turned white. He looked at Lowry. Then unashamedly, tears sprang into his eyes. "How can a man die so easily?" he asked half aloud. And yet he knew it had to be that way. Once Blake got into the region of the atomics without shielding, his body would become a neutron-riddled mass of radioactive matter. Death was a matter of hours away—and Blake wasn't taking the long way out. He'd throw his glowing body into the jets when his job was finished. He was a spacial engineer and he was keeping to the traditions of his breed. Pile Four had

to be knocked out or the ship would turn into a torch eventually as the focal point spread. Blake would coolly cut out the dangerously explosive mass—and then die.

With bowed heads the officers watched the screen. They saw the tiny figure make its way into the service ports, ports intended for robot mechanisms on drydock service, not human beings. They saw the man enter the zone of hard radiation that even then was converting his body into a radioactive mass. They couldn't see his manipulation of tools, but the panel instruments shortly recorded the dying-down of Pile Four. In a mere ten minutes the job was done.

Blake emerged from the number four service port. But it wasn't the same Blake. Surrounding him was an aura of greenish radiation, a halo just suggesting its virulence. Already Blake was a dying man. He could come shipwards and die in the lock but why contaminate an airlock? Calmly he walked sternwards. Bainbridge tried to contact him over the phone. They could see him shake his head.

He got near the jets and waved his hand like a Roman gladiator saluting—*moratori salutamus*—then he vanished into incandescence and the ravenous jets devoured his glowing body.

Bainbridge, shaken and white-faced, turned to Lowry—"That's the bravest thing I've ever seen," he said softly.

"Greater love..." Lowry started to say and left it unfinished. There was no need to finish. Blake had written his own epitaph—without fear...he did his duty...

—Charles Recour

## THEORY IS NOT ENOUGH!

By MILTON MATTHEW

WHEN the scientific mind tends to get a little smug (a common experience) and congratulates itself on the beautiful union between theory and experiment, it is easy to bring it back to reality with a perfect example of a development where theory and experiment were poles apart. This occurred, or failed to occur, in the development of the science of flight.

From the time of Newton and Bernoulli on, hydrodynamics and fluid mechanics, the study of the flow of liquids including gases and of objects through them, was erected on an imposing mathematical basis. Large numbers of papers were written and numerous studies created monuments and mathematical edifices to the theory. Practically none of this theory was applied.

When the late nineteenth and early twentieth centuries brought out experiments in flight, culminating in the Wright brothers' famous and successful experiments, the scientific theory of fluid flow on a mathematical basis entered the picture not at all! Even with the rapid rise

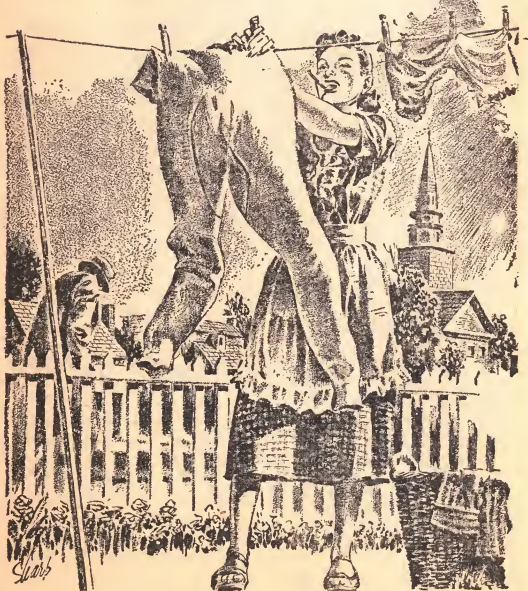
of aviation—commercial and military—fluid theory played an insignificant role, most problems being solved by direct experiment or by trial and error.

It is only now in the last ten years that a real correlation between theory and fact has been made. To be perfectly fair, this isn't usually the way science works—theory and experiment do go hand in hand—but the complexities of fluid mechanics and the actualities of heavier than air flight seemed to have little in common. Unfair though it may seem, we must say that the experimenters developed flying, not the theoretical engineers!

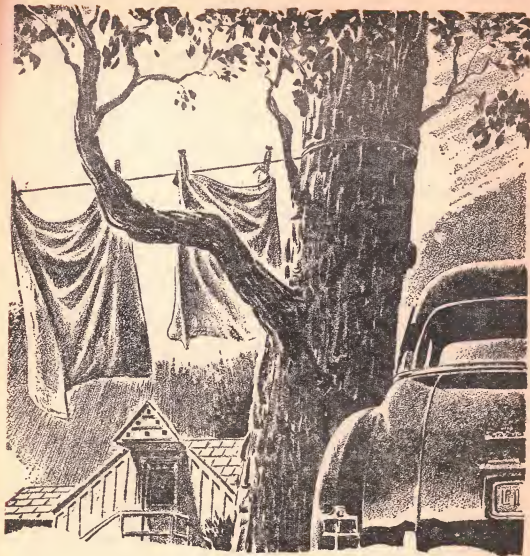
With the coming of jets and rockets, however, the union between theory and experiment is rapidly becoming a close one. And more and more, the highly elusive concepts of higher mathematics are necessary to enable the construction of working motors and projectiles. It is just one of those odd cases where theory applied to fact took an awfully long time to catch hold. Now that it has, we can see the subject accelerating in progress!

# THE SKY WAS FILLED WITH LIGHT

*By H. B. Hickey*



Sure; the world would be ending any minute now. But meanwhile the wash had to dry!



**Somehow it didn't make sense to Frank: with the world ready to end, all his wife cared about was payments on the washing machine!**

**F**RANK MORTON was standing at the living room window, looking up at the great rectangle of light in the sky. Suddenly there was a sharp click behind him and he jumped, startled. It was

Mildred. She had turned off the lights.

Not that it made any difference. It was eight o'clock in the evening, and autumn, but the room remained bright as day.

For seventy-two hours there had been no night.

"What's the difference?" Morton demanded peevishly.

"Well, it's really a waste of money."

A waste of money. That was a woman for you. In another few days they'd all be dead, destroyed by the comet, and Mildred was turning off lights, worrying about an electric bill they'd never have to pay.

Morton was sweating profusely. At thirty he had been athletic looking; at forty-three the muscles had flabbed, he sagged slightly in the middle. A nerve in his face twitched.

He wanted to tell his wife to stop pussyfooting around, but managed to hold his tongue.

"I just talked to Martha Byers," Mildred said. "She wanted that recipe and I forgot to mail it to her and tomorrow's her women's club. I just had to call her."

Morton wet his lips. Al Byers was public relations man at the university. He knew all those scientists by their first names.

"Did she say anything about—about the—" His thumb jerked upward.

"I forgot to ask her," Mildred said. "Isn't that just like me?"

Was she crazy? Morton stared at his wife, wondering. She looked the same as ever, neat, slender, her house dress crisply starched, her straight brown hair parted dead center. Her plain, pleasant face was calm.

Maybe it was shock, he thought. Maybe women were like opossums, part of their nervous systems turning off automatically to make death easier.

"What's on the radio?" Mildred asked, breaking into his reverie.

"What do you think's on the radio?" Morton snapped.

But he couldn't help himself. He

had to go and turn it on. A voice came over with the same old story rehashed. Morton twirled the knob. Another voice, another rehash. He turned the radio off.

"They don't know a damn bit more than we do," he muttered.

And the longer this went on, the less they'd know. At first, when the comet had just become visible, they'd known all about it. They'd passed out a lot of blah, ornamented with big numbers.

They'd figured out, the scientists, exactly how fast the comet was travelling and from what incredibly distant universe it must have been flung. They'd known just how big the body was, and how big the tail, and on what ellipse or parabola or oval or something it was running.

There hadn't been a thing to worry about. It wasn't going to come within a trillion miles of the solar system.

Not much it wasn't!

**A**CROSS THE street Harvey Cain came dashing out of his house, his wife on his heels. Turning from the radio, Morton saw him through the window. He made a sound in his throat and jumped for the door.

"What's the matter?" Mildred called.

"Harvey. He must've heard something!"

He ran across the lawn, across a flower bed, his heart pounding. Harvey's eyes looked wild, and Ellen Cain was definitely upset. They were poised there on the walk, as though not knowing which way to run.

"What—" Morton began.

Harvey looked at him. "That damn cat!" Harvey said. "Went out of here like a bat out of— You didn't see him, did you?"

He could have broken Harvey's neck. Harvey and Ellen and that fancy Persian cat of theirs. What did

they mean, throwing a scare like that into him?

Other men were coming out of houses along the quiet street. Morton saw them, knowing what was in their minds. What else could be in their minds? He waved his hand at them, waving them away.

"Nothing," he called. "Just Harvey's cat."

Harvey looked at him and he looked back at Harvey, and each was shocked by what he saw. You are neighbors with a man for years and you know every line of his face like you know your own. And suddenly you see him and he has shrunk, deflated, grown old and empty, like an old balloon with most of the air gone.

They turned their heads upward, at the patch of light in the sky.

"You know what I think?" Harvey asked suddenly, like a man who can't bear to keep a secret any longer.

"What?"

"They knew all along it was going to hit the Earth. But they didn't want to start a panic."

"You know," Morton said, "I been thinking the same thing myself."

He hadn't been thinking that at all; he'd been afraid to think it. He wished Harvey hadn't said that. It was coming; let it come suddenly. How long could it last anyway? The heat, the baking, the scorching, the poison gases. And then—poof—everything going up at once in hellfire.

"Why don't you two men come up on the porch?" Mildred called from across the street. She and Ellen were already on the glider.

"I've been telling Ellen what a nice roast we had today," Mildred said.

"Wasn't it, dear?"

"We had chicken," Ellen said. "You know, Mildred, I'm getting kind of tired of chicken on Sunday."

"Oh God," Morton said. He laughed weakly, a little hysterically.

The women kept chattering and he and Harvey kept looking up into the light sky. Both of them would have given all they owned to see nightfall.

**B**UT THEY wouldn't. Not ever again. The sun and the comet were travelling in the same direction, the comet following the sun. Or maybe it was the other way around. Morton didn't know.

"How can it burn?" Ellen asked, following her husband's eyes. "Isn't it a vacuum up there? No air?"

"It doesn't need air," Harvey said. "Nuclear fission."

"You know what I think?" Mildred said. "It's those darn atom bombs everybody's been exploding."

"Oh God," Morton said again.

"What's that got to do with it?"

"I don't know, dear." She laughed, self-deprecatingly. "I never was much good at science, even in school."

He stared at her, thinking he was going crazy. How stupid could a woman get? Didn't she know anything? Anything except how to mend socks and make roasts and iron a shirt?

"Anyway," Ellen said, "they run on some kind of tracks or something, don't they? I mean, it goes in a certain groove, and it can't get out of it. That's what I heard a man say."

"Sure," Morton said. "It runs in a groove. I know it, you know it, the man you heard it from knows it." He stood up, almost shouting. "But does that infernal comet know it?"

Suddenly Harvey jumped to his feet. "What the hell?" He was looking across the street.

A car had pulled up in front of the Cain's house, a car with two boys and a girl in it. Another girl came running from Harvey's house. It was his fifteen-year-old daughter, Kay.

"Where does she think she's going?" he demanded.

"Just for a ride," Ellen soothed.



"At this hour? Who does she think she is, anyway?"

"But it's light out, honey. And there's no school until further notice."

"I don't give a—" Harvey began. He shrugged. "What's the difference..."

No difference, Frank Morton thought. Let the kid have fun. He wished his own two kids hadn't been born, although, come to think of it, they were too young to know much. He wished he himself had never been born.

HE AWOKE at the usual hour in the morning. Morning? How could it be morning when there hadn't been night?

He looked out the window. It was definitely warmer. He could feel it. This wasn't Indian Summer, either. It was going to get warmer and warmer.

He shaved with fumbling fingers, nicking himself several times. Usually his face came out pink and healthy; today there were patches of stubble and his skin was gray. Who cares? he asked himself.

But just let Williams, down at the office, say one word about appearance this morning. Just one word. He'd tell Williams what he could do with the job. In fact, Morton decided, he wouldn't even go to work today!

Mildred wasn't in the kitchen when he came down. But there was the clothes basket, heaped to overflowing. Morton stumbled on it and cursed.

"Be right there!" Mildred called. She was out in back, hanging over the fence talking to the woman next door.

They were probably deciding who would make the potato salad for the coming church picnic, Morton thought. The church picnic that would never come.

He looked around the neat kitchen

at the chrome-legged table and chairs, at the neatly starched cottage curtains, at the stove and refrigerator with their porcelain that had turned cream colored. He looked at Mildred as she came in and set the bacon sizzling.

And he thought: Twelve years, the best twelve years, the last twelve years of his life. With this plain woman. In this cheap house with its cheap, mass-produced things.

And now he was going to die. Oh God!

"What did you say, dear?" Mildred asked.

"Nothing." He wasn't aware that his lips had moved.

He didn't want to die. He was afraid to die. At least if he'd had something during his life! But to sit here in the midst of all his crummy possessions, looking at his wife, and knowing that this was all he'd had, all he'd ever had, and all he would have now.

He couldn't bear to think about it. "What're you doing?" he asked, nodding at the heaped basket. "Taking in the neighbors' wash, too?"

Mildred laughed. He'd never realized before what a stupid laugh she had. "It's so nice and sunny and warm, I thought I'd just as well do everything I could," she said.

She said, "You know, Frank, that old washer's on its last legs. It would be a good investment to get a new one. We could pay it out."

That was a good one! Pay it out! He could just see himself signing a twenty-four month contract. Like a man in the electric chair, his head already shaved, signing the coupon for a correspondence course!

"What's so funny?"

"Nothing." His laughter sounded crazed in his own ears. "All right. Next payday we buy a new washer. You want an automatic?"



"That would be nice," Mildred said.

"Turn on the radio," Morton snapped.

She turned on the little kitchen set. The guest on this morning's breakfast show was a leading astronomer. Frank and Mildred listened while the astronomer explained how the comet had acted so erratically that new theories had had to be formulated. At the moment nothing could be definitely asserted.

"Isn't that a shame?" Mildred said.

"He's lying," Morton muttered.

"No, I mean the way they spoiled the program. It's always so funny."

On the last second of her life, Morton thought, with the asphalt boiling in the street and the block already in flames, Mildred would look up from her mending and notice that a picture was crooked.

He fled from the house.

**H**E CURSED the children under his breath. They were the lucky ones. They and the insane. They didn't know what was going to happen. He wished he were a child. Or crazy.

The bus was crowded, everybody's morning paper in everybody else's face. Who was reading whose? It didn't matter. There was nothing to read anyway. Nobody knew anything.

He walked toward the office, wondering why he and all these other men were going to work this Monday. They were like little cogs and gears in a clock that had lost its hands. Their motion was without meaning any longer, but they kept moving.

Suddenly there were shots and everybody was running. Morton ran too. There was a squad car and police and a crowd.

"Looters," someone said.

So they were beginning to loot already. Why not? Look at that window, full of expensive clothes. He

had never in his life owned a suit that cost more than fifty dollars. Who would it hurt if Frank Morton wore a hundred-dollar suit the last couple days of his life?

In the elevator going up, he met Williams. Williams looked at him closely as they said good morning to each other. Williams didn't look so good himself. But if he said one word about those whiskers on Morton's chin, he was going to get punched.

Fortunately, Williams had nothing to say. He had nothing to say about the portable radio someone had set up in the mailing room. It was a good day to let the men alone.

If only the customers could have let them alone, Morton thought. But no such luck. His desk had its usual pile of letters, each a complaint from a customer.

A stenographer came in from the office pool and Morton began to dictate: "Dear Madam: We are sorry to hear of your difficulties with our product. Please be assured that if our service men cannot remedy the defect, the article will be replaced with one which will give you the years of service to which you, as our customer, are entitled. Sincerely."

Years of service. That was a hot one! These women were crazy. They were all crazy.

"I beg your pardon," the stenographer said.

Morton looked at her, looked long and hard. About eighteen, he figured. Legs not bad. Not bad at all. And the rest of her... His eyes seemed to have developed a tactile sense; he could actually feel her skin without touching her. Soft and smooth.

Well, why not? They gave a condemned man a last meal, didn't they?

"You look tired this morning, Myra," he began. "Rough night?"

"Late date." Her eyebrows did things.

Where did he go now? It had been so long. What did he say now? God, twelve years. He used to have a pretty smooth line. If he could only get going, he thought.

In the mail room the radio blared. Someone ran past the cubicle which was Morton's office.

The stenographer, legs, body, skin were forgotten. Morton dashed around her, almost knocking her off her chair. Something was happening. All the men in the office, and most of the girls, were down at the far end of the corridor where the mail room was. Even Williams was there.

"What's the matter? What is it? What happened?" Morton couldn't seem to stop himself.

"Tidal wave," someone said. "Coast of China."

So it was already starting. Tidal waves, floods, fire and brimstone. Morton shook like a leaf. This was the beginning of the end.

**H**HE DRIFTED back to his cubicle, seeing the thing in his mind. A tidal wave, a towering wall of water that swept over everything, engulfing homes, factories, people.

He looked out of his window. Far below, in the unusual brightness of the day, the scurrying figures looked like ants. They'd better scurry when these buildings started coming down.

The sweat was dripping from Morton's face, soaking his coat along the sides, below the armpits. He had to fight the urge to fling himself out and have it done with.

The phone rang and with a trembling hand he lifted it.

"Hello, dear," Mildred said. "Sorry to bother you."

"All right." His mouth was dry as dust. "What's wrong?"

"Nothing. I just got to thinking, dear."

"Thinking?" he said stupidly.

"The washing machine. It was a crazy idea."

"Yeah."

"We can get along without it. But you know what I thought? I thought instead of the washer we could get that encyclopedia for Frankie. It's the same money, the same payments, practically, and it'll be such a big help when he goes to high school next fall."

"Oh God," Morton said.

His wife went right on: "I looked it up and the main office of the encyclopedia is right near you."

"I'll go there tomorrow." Anything. Anything, just so she'd hang up.

"You'll put it off," Mildred said. "Why don't I call them and have them send a man over near the end of your lunch hour?"

"No!" Morton shouted.

"Please, Frank. I wish you'd see the man. Let me call them."

"Listen! Listen, don't you realize—" "Please, Frank."

"Oh, all right," Morton said.

**T**HE SALESMAN refused to let him get a word in. It was well past the lunch hour already, and any one of these minutes Williams was going to throw a fit. Not that Williams mattered any more. Why, come to think of it, if it hadn't been for Mildred he mightn't even have come to work at all.

The salesman stopped for breath at last and Morton leaped in: "Look, mister, with this comet on my mind, do you think—"

"That's just what I mean, Mr. Morton," the salesman said. "You look on page 1163 of our encyclopedia and it explains all about celestial phenomena. Why should your youngster remain in ignorance of the laws of our universe?"

"Really," he said, hitting the desk, "it's a great thing you're doing for

your boy. Some day he'll thank you!"

It was a smooth pitch. He was a good salesman. The world was coming to an end, but until the last minute he would go on selling his encyclopedias. And Mildred would be busy washing clothes and hanging them and ironing them.

"All right," Morton said. And then he was almost sorry he had given in. The sales talk had been distracting him from thinking. Now it was finished.

A paper slid across his desk. "Sign right here."

He signed. He obligated himself to pay eleven dollars and twenty-two cents a month for the next eighteen months.

It was really very funny. Why couldn't he laugh?

Blank-eyed, he watched the salesman leave. It seemed to be getting warmer in the cubicle, but Morton just didn't have the energy to open the door. Might as well get used to the heat, he thought.

The door opened and a face popped in. "Close up shop!"

"Huh?" Morton said.

"We're getting the rest of the day off! No work being done anyway, Williams says."

"Isn't that sweet of Williams," Morton sneered.

He got his hat off the rack and slapped it on his head. And as he walked through the outer office, Williams called after him: "Frank! See you in my office for a minute?"

Now what? He stood in front of Williams' desk and there was no way of telling.

"I noticed a man in your office," Williams said. "Salesman?"

"Yes, sir. Encyclopedia. For my boy. You see—"

"I thought that was it," Williams said. He looked up at Morton and smiled. "I like that, Frank. I like that

very much. At a time like this to be thinking of the future of your son. We need men like you."

He clapped Morton on the shoulder. "Frank, when this blows over, if it does, I want to have a talk with you."

Why couldn't Williams have said something like that a week ago? Morton wondered. A week ago it would have meant something, it would have given him a few days of happiness. And now it was too late.

"Thank you, sir," Morton said. He didn't know what else to say.

THE STREETS were full of people, silent people, their eyes turning again and again skyward. They all looked numb.

And on the bus it was the same way. The newspapers again. Everybody reading everybody else's, hopping against hope that the other fellow had a later edition with better news.

But the news was worse. Now there'd been an eruption of Mauna Loa, an earthquake in Ecuador. It was beginning to roll.

Morton got off at his corner and started to walk, shoulders bowed. But he couldn't go home. Not yet. He couldn't make himself walk down that street with its rows of neat, cheap little houses. He couldn't face that without a drink.

The tavern was crowded, the men lined up double at the bar. Nobody was talking much. They all had that numb look. They were getting drunk as fast as they could. Maybe they were smart, Morton thought. Drown themselves in whisky and they wouldn't care so much.

But after two drinks he himself couldn't go on. It was making him feel worse, not better. He had to get out of there.

He knew what he would do. He had a gun at home. At least that was quick. First Mildred and the kids, and

then himself.

Walking very fast now, he was almost at the corner where he would turn down his street. A blast of sound hit his ears, pouring out of an open window. A man came roaring out of the house.

"Yahool!" the man yelled, grabbing Morton and whirling him. He was very drunk. "Yahool!"

"Let go of me, damn you!" Morton shouted. He balled his fist. He'd kill this dirty, crazy—

The drunk stared at him. "It's going away! Didn't you hear? The comet's going away!"

"You're lying," Morton said. "It's a drunken lie!"

"Not lying," the man said, trying to stand erect. "Not lying. Just heard it onna radio. C'mon, listen for yourself."

But he didn't have to go inside to listen. There it was, there it was pouring out the window!

"...and is now definitely receding," the speaker was saying. "First computations of the comet's course have been proved correct. Its erratic behavior was caused by a large mass in its vicinity, which went unobserved because of the intense light of the comet. Photographic plates developed at Palomar Observatory this morning show this mass, which is now distant enough to have no further effect."

"Palomar astronomers predict that we will have a full hour of darkness tonight!"

"Y'hear?" the drunk said. "One hour of darkness." He laughed, blowing fumes in Morton's face. "One hour. Just like the North Pole."

"So we're a couple of Eskimos," Morton laughed. He began to run.

**WHAT** HAD made him think it was hot? It wasn't hot, it was crisp and fine, a wonderful day. Indian Summer, that was all. There

was the smell of burning leaves in the air.

And the street where he lived. It was something to make a man proud. Every house so well cared for, every lawn just as smooth as a billiard table.

A few years ago, it had been just another tract, but now look at it. Hard work, but when you saw the results it was worth it. What else was there to work for?

And then he came to his own house. He stopped short.

The lines in back were full of clothes, clean clothes flapping in the breeze.

In the front hall he got the scent of apple pie baking in the oven.

And there was Mildred, slender, beautiful, her hair brushed until it glistened, her house dress crisp with starching.

The whole place shone. It was Monday. Mildred had put in a day of work.

A minute ago he'd been full of joy and good news. And now, remembering the last few days, he couldn't look his own wife in the eye. The way he felt he'd need a ladder to get his own eyes level with hers.

"Frank, haven't you heard the news?"

"Yeah," he said. "Wonderful." He licked his lips, still not wanting to look at her. "I got some more news. Looks like a raise for me. Maybe a better job."

She didn't get excited at first. She was watching him closely. "Well, it's about time they showed some appreciation for a man like you."

He wished he could think of something to say. A joke or something. But all he could feel was shame. There was more character in Mildred's finger than in his whole body.

Now, she was getting excited. "I'm going down to the basement for some

wine! We're going to celebrate!"

Before he could stop her, before he could say he would get it, Mildred was through the kitchen and going down the stairs.

He heard her scream.

MORTON FLUNG himself across the kitchen and caught her as she flew up out of the stair well, still screaming.

"What is it?" he demanded.

"Down—there!"

The gun was upstairs and no other weapon handy. It didn't matter. His shoulder muscles bunched and his jaw jutted forward. He swung Mildred behind him, out of harm's way.

"Stay here!" he commanded as he moved ahead. "Where is he?"

"Behind the wine bottle," Mildred said.

"Behind the wine bottle?" He stared at her. "What—"

"A mouse! A great big mouse!"

He exploded into laughter. Not mean laughter, but good loving laughter. "My God, I thought it was a burglar! Imagine letting a little mouse throw you into hysterics!"

Still laughing, he said, "All right, scaredy cat, I'll go down for the wine."

He put his arm around her and hugged her affectionately, feeling more like himself again. Good thing he'd been home, he thought. She might have run clear into the street. Or fainted dead away. These women!

He strode toward the basement stairs, his head held high, his shoulders squared. He was still smiling as he disappeared into the well, feeling years younger.

Behind him in the kitchen, Mildred let out a sigh. And then suddenly she began to tremble violently, her whole body shaking, her teeth chattering. She grabbed the door and held on tight until the trembling stopped, biting down on her lip to stop the chattering.

It was all over now. Everything was all right again.

With a little luck, things had evened themselves up. Frank was afraid of a comet, and she was afraid of a mouse. Mildred sighed again and smiled gently.

Then she got busy. There were things to do, dinner to get and clothes to take off the line for ironing. This was Monday and she had a family to take care of.

THE END

## a case of SOLAR FRUSTRATION

by

JUNE LURIE

ANYONE who looks up at the Sun and sees that ravening ball of incandescent gas through the eyes of the professional or amateur scientist can't help but cry in his beer and develop a severe frustration complex. We pride ourselves on Man's conquering his environment, his ability to use energy in vast amounts. But the yearly consumption of energy on this Earth is equalled in a mere three minutes by the furious atomic furnaces of the Sun!

Is it any wonder then that scientists tear their hair when they think of the gigantic waste of energy the Sun represents. Our planet could be a paradise if energy were as cheap or cheaper than water. If the Sun's output could be har-

nessed, even the comparatively small amount that strikes this planet, not a speck of coal or oil would have to be touched and even atomic power would be minor. As yet this hasn't been tackled, but men everywhere are trying to capture the rays of the Sun.

Someday, perhaps by mirrors and boilers, or perhaps by vast thermopiles of dissimilar metals which would generate electricity directly, the Sun's energy will be tapped and this gigantic sink will provide men with all the power they can possibly use. The Sahara desert will become a garden and even Asia, Northern Canada and other cold, barren spots will be habitable comfortably. Don't sell science short. Men must tap the Sun...



# The CLUB HOUSE

Where science fiction fan clubs get together.

**T**HIS MONTH I'm not going to give a lofty lecture on some abstract subject in this editorial that prefaces the CLUB HOUSE. Instead, I'm going to discuss the policies I have held to in this department of *Amazing Stories*. What brings this on is a certain fanzine which will remain unnamed. The incidents leading to this discussion were (1) I received a fanzine for review which contained not one thing I could quote in *Amazing* without having that issue of *Amazing* barred from the mails. I wouldn't have to quote anything, in a review, but the fact remained that the zine was 100% lewd. (2) I sent a card to its editor telling him I couldn't review his fanzine, and why I couldn't. (3) I received a friendly and sincere letter suggesting that I mention it anyway, and "come straight out and say it is not fit to grace the home of young innocents and is a revolting combination of low-bred phraseology, suggestiveness, and ill-will."

He went on to say, "It is rather infantile to object to criticism that appears in a column of a fanzine review."

Needless to say, he has a point there. However, that issue of his fanzine was nothing but lewd description and dialogue of the type that doesn't even have an unusual twist to it to make it interesting. The subject matter was aberrant sex, digestion, and anti-religion, with more than a little perverted artwork. The only ethical claim the thing had to the name fanzine was that it was mimeographed and it was sent to a sf prozine to be reviewed. (Yeah yeah, I know. If I mentioned its name now the poor kid would get five thousand subscriptions, so I'm not going to even hint at it. The way you can get it is to go through back issues of the Club House and subscribe to every fanzine I've ever reviewed, and one of them will be it!) But it raised the question, why shouldn't I criticize the fanzines I review? Why shouldn't I say:

**GNUTS:** 15c; John Dough, Dough-gnut press, 666 66th St., Lower Hackensack, Alaska. Why don't you go out of business, John? Or learn how to stencil neatly? Three short stories in this issue that would have been better left unwritten. Their plots and characters are hackneyed and unoriginal, and handled in about the worst way possible. Only thing worth reading

was three lines at the bottom of page 6 and they aren't worth repeating. Better improve your fanzine, John, or stop wasting the time you put in on it.

Or maybe I could tone it down a bit like this:

**FACE:** 10c; The Angel Press, 222 Toot St., Dead Jack Bluff, Montana. Editor, Joe Sloe, though I don't know where he got the courage to admit it. A smudge on page three places this zine out of the running in the top eleven, but don't let it worry you, Joe, because you wouldn't have gotten in anyway. There are eleven fan editors who own electric typewriters and hire professional shops to run off the copy, and until you can afford to do that you don't stand a chance. Harold D. Funct has a short fantasy in this issue of **FACE** that deserves to appear in one of the top eleven fanzines.

Or maybe I could do what another fanzine reviewer does—not knock the also rans, but just list them without comment, reviewing only those fanzines which were typed on electric typewriters and run off by professional shops, and those whose editors have been publishing a fanzine so long that it's their main profession while their job is relegated to a necessary evil to gain a living.

But somehow I just can't. I see a fanzine like *Fantasy-Times* that is the top newszine of fandom, and I know that James Taurasi has been publishing for years. Mimeography is second nature with him. He's a specialist who knows all the tricks of finding out what's going to happen in the prozines. He gets in the top ten and deserves to be there. I see a fanzine like *Nekromantik* and realize that no mere fanzine can equal it. It's a professional job all the way through. Then I realize that they aren't what I would really call a fan magazine at all. They are there to fill a need, and they are classed as amateur publications. But the skills that go into them are on the professional level.

Then a fanzine comes to me that was poorly stapled. The stencils were made on an ancient Underwood No. 5 by a one-fingered typist. He spent at least sixty hours making the stencils alone, being careful to get that lousy story sent in by an eleven year old friend of his exactly



the way it was written, spending long minutes thinking of something witty to fill those last seven lines at the bottom of the last stencil. His allowance is two dollars a week and it took the month's allowance except for a coke on Saturday, and another seventy-five cents he got from his ma when pop wasn't around. (He can spare a quarter for *Amazing* when the dimes come in from subscriptions.) Poor Noodnik Jr. got hell from his dad for mimeographing when he should have been mowing the lawn and carrying out the tin cans because the garbage truck's coming around in the morning. He got hell from his teacher because he had to write out his editorial during history class and got caught at it.

In my books Noodnik Jr. is the best fan of the lot, and his fanzine is the best of the lot. He put more of his heart into it than the old time fans did. Should I relegate him to an idle mention?

That's why I can't find anything to criticize in any of the fanzines sent me for review. When I find something off color or careless I ignore it. The fan editor and his friends were having fun. That's why I will never grade the fanzines and place any of them in a top bracket above the others.

Nor will I start a precedent for this column on criticism by attacking the policies of a zine so lewd and in such poor taste that its editor would land in jail if the post office bothered to read it. My policy will continue to be: Where I can't praise and boost I will ignore.

And now to the reviews for this month...

First in line is a review of *SPACESHIP* written by one of its editors, Bob Silverberg, 750 Montgomery St., Brooklyn 13, N. Y. Bob and Saul are doing a fine job and enjoying doing it. Here's the review:

*SPACESHIP*, co-edited by Saul Diskin and myself, is now entering its third year in a field marked by short lives. The Twelfth-Anniversary number issue is now on sale, or will be when this sees print. *SPACESHIP* was first published in April, 1949, and the eleven issues up to April 1951 have shown marked improvement right along. The April, 1951 issue is the biggest and best so far.

We've obtained luxurious 60 pound lithograph paper and the mag is mimeographed on this slick stock. The 2nd Anniversary number has 20 pages, crammed with something for every fan. We've got an article by an old-timer, of interest to every veteran; we've got an article by a newcomer which should make things clearer to neophytes. There's fiction by a pro author—2500 words of it—and also a shorter story by a rising fan. We have two new artists for the anniversary issue—one a young fellow just entering fandom, the other, one whose drawings have been on many of the best fanzines for years, and who will probably crack the

prozines shortly. There's poetry by noted fan poets Todd Conwell and Orma McCormick...letters from the fans...a checklist of British science-fiction...two well-researched book reviews...and many other fine features. And just as much good stuff was crowded out and will be published in issue number 13.

Twenty large-size pages—and the price is only a dime. Three issue sub for 25 cents! Come on, fans, dig down. Not that we want to make money, but we would like to get back enough out of it to pay the postage. And we honestly think you'll get something worthwhile out of a copy of *SPACESHIP*.

*SHANGRI LA*: 15c or if you're interested in joining the Los Angeles Science Fiction Society it's included in your membership. Richard Terzian, 1305 Inghram St., Los Angeles 17, California. Two issues on hand for review; No. 23 and No. 25. The first is the more interesting since it contains well written accounts of several meetings and what went on at them. Also in No. 23 is the results of a poll conducted by Rick Sneary asking seventeen questions about when various things will happen. A sample question, "When do you think the first atomic engine adapted for space flight will be used?" Most interesting answer was to the question of when the next depression will begin. The average date placed it at August 1951.

No. 25 contains several well written articles. One by Arthur Jean Cox discusses quite intelligently the works of Simak. A poem by Rory Faulkner creates a very vivid mood. "On the Value of Opinion" by Alan Hershey presents some rather unusual slants on why we hold the opinions we do.

*FANTASY ADVERTISER*: Feb., bi monthly; 15c; 1745 Kenneth Road, Glendale 1, Calif. Primarily an advertising medium for those with stf collectors' items to sell or trade. Its editor points out that it is a very good medium for advertising your wants too. A simple ad will bring pricelists from dealers and collectors with excess copies, and you can pick the lowest price, in most cases saving the cost of the ad.

Stanton A. Coblenz spends two pages discussing the older science fiction magazines. "Space Travel in Fact and Fiction" by Arthur C. Clark is the major article of the issue.

Do you want a mint copy of the first issue of *Amazing Stories* for fifteen cents? You won't find it in *Fantasy Advertiser*, because the current market price is nearer fifty dollars. But you will find just about everything in the line of stf advertised there, and at prices that are generally accepted current market values.

*QUANDRY*: 10c; Lee Hoffman, 101 Wagner St., Savannah, Georgia. March

issue. Thirty pages with good cartoon art and thirteen items from "Science Fiction in a Nut Shell" by Joe Kennedy to "The Last Word", by the editor. Probably the best thing in the issue is Wilkie Conner's Kolyum.

**CHIMERICAL REVIEW:** combined with BEM; 15c, 2/26c; 942 Scribner N. W., Grand Rapids, Michigan. No art work, but quite a few short stories. "A Philosopher Named Mike" by Betty Jane Woodward starts the issue. It concerns two married people, one of whom can't sleep, and decides to talk. (That's what I get for jumping to conclusions. They weren't married. One of them was a dog.) Let's try the next story. "The Disgruntled Typewriter and the Disenchanted Writer," by Dennis Strong. It concerns a typewriter that talks back to its master. (The dog talked back to its mistress in that other story. Could this be the same plot?) For variation the next item is an article. "The Current Prozone Crop: Too Many Rotten Apples", by John Kalas. Too many prozines, he says. Could be. Quoting from an article on the page opposite, "In fanzines, articles are usually vehicles for expressing the opinions of one person." Aren't articles usually that? Next comes a short short story, "The Ice Cream Cone", by John Kalas which is original and well written. I could go on, but you have the idea. This is a well put together fanzine, well worth reading.

**FANTASY-TIMES:** twice a month, 10c; James V. Taurasi, 137-03 32nd Ave., Flushing, New York. A newzine devoted to news of interest to all readers of science fiction, with a record of many years of consistently good reporting. The first February issue celebrates *Amazing Stories'* 25th anniversary issue, the April number, by reviewing the history of the magazine. There's an article discussing an article in *Liberty* magazine branding Dianetics as the number one fraud of the year, and lumping it with science fiction to science fiction's detriment. Hal! The trouble with articles that attack a thing is that they make a lot of readers get interested in it. It reminds me of something Father Sprague said in class one time at Gonzaga University in Spokane. "Any time kids make pests of themselves you can get rid of them by telling them under no circumstances to stuff beans up their nose."

In the second Jan. issue *Fantasy-Times* announces that U. S. Stf Magazines are now allowed on Canadian stands again, ending what was never anything but a foolish restriction, since most of the paper in them came from Canada and was paid for with American dollars, and the restriction was supposed to keep those dollars from coming back here, but didn't.

Don't forget about *Fan-Vet*, the issue of F-T for overseas veterans and soldiers on the fighting fronts where we are en-

gaged in an interplanetary war. That is, we're killing off a lot of extra terrestrials. It's too bad the home government of these extra terrestrials considers them just that. Each of those Chinese soldiers rushing in mad abandon against our guns could have, under a favorable government and society, lived a healthy happy life, enjoying books and magazines, seeing motion pictures, and becoming writer or scientist or business man or factory worker or farmer. That's the pitiable thing about it.

**THE CENTAURIAN:** bi-monthly; official organ of the Centaurians. No price listed. Bob Farnham, 104 Mountain View Drive, Dalton, Georgia. There are thirty members to date in this group. "Notes of Interest" by Eva Firestone has several interesting items culled from the papers. Most interesting is "Flying Saucers were much in evidence in the home of eye stencil cutter recently when the family cat caught a mouse in the cupboard..." A short story by Bob Farnham, "Shadows" is rather nice.

**SCIENCE FICTION WEAKLY:** reviewed for egoboo. A one sheet humorous fanzine distributed at a meeting of the Queens Science Fiction League at which I was invited to speak. Its headline, "Fandom Fights N. Korea" announcing Will Sikora's "death" when his house was "bombed", and "quoted" comments from name fans who all said, "Now isn't that just too bad!" If you would like to get on the mailing list, write to Alan H. Pesetsky, 1475 Townsend Ave., New York 52.

**SIRIUS:** Stan Serxner, 1308 Hoe Ave., Bronx 59, N. Y. It's too bad, but this is the last issue of this zine to be reviewed. Stan is going in the army. Why don't you write him anyway? The price is fifteen cents and there may be some copies left that he would send out. Maybe someone else in this Queens and Bronx amateur writing group will take up the torch and continue the zine. By far the best story in this issue is "Torture" by Raymond L. Clancy whom I think should be a professional instead of an amateur writer.

**ZOBBL:** no price and no guarantee of regularity because Wally is attending college while he publishes it. Wally Weber, 378 Cascade Hall, University of Washington, Seattle 5, Washington. Lead story is "The Sad Sad Story of Pete, the Green Sirian" of which Wally says, "any fanzine that can survive after printing a story like this should be capable of conquering all obstacles." It seems that Pete, born on Sirius 2½ was born with a green skin, and his mother was so ashamed of him she started a rumor that he wasn't hers. She had just hatched him for a friend... Oh well, there's a good article in the issue titled, "Winning the Friendship of Aliens"... You'll enjoy Zobbla and

you'll like Wally Weber. That's a guarantee.

**WONDER:** \*Autumn 1950, \*Michael Tealby, and unfortunately he didn't include his address in this issue so I can't give it. You can find it in back issues of *Amazing* though I don't know which ones. "Happy Holiday" by Cedric Walker is a delightful futuristic story that could probably find a market in an American slick magazine or even a pulp. In fact, if I were an editor I would buy it. "Are We Property?" by Ron T. Deacon covers an old theme very well, developed by Charles Fort.

Michael Tealby authors an article, "The Mystery of the Noise From Nowhere", a mystery similar to the flying saucers of this country, but nothing more than a sound that can be heard all over England.

It's similar to the humming of wind on telephone wires, to some hearers, and others say it's a "continuous sensation" similar to the tuning note of the B. B. C. First heard in 1942, it is getting louder.

Your address, please, Mr. Tealby!

M. McNeil, 2146 Stanmore, Houston Texas, announces he intends to publish a fanzine, *FANADIK*, 5c, published irregularly, containing poetry and stories. OK., fans, help him out with contributions of nickels and material!

The same goes for Tom Voorhees and Peter Birrell, 2610 Fifth Avenue, Tucson, Arizona, who plan to publish *ERA*, and already have their first issue lined up, with stuff by Machado, Madon, Thomas, and others.

—ROG PHILLIPS

## TOOL - - - OR TYRANT?

by  
WALT CRAIN

**P**ROFESSOR NORBERT WIENER'S name is familiar to any follower of science-fiction. This magazine has followed his development of cybernetics, the science of control and communication in men and machines, with avid interest. Anything that the scientist says in his field, is of extreme interest to anyone concerned with current trends in industry, science and society. Science-fictionists are not the only ones who respect Wiener. Even conservative businessmen are beginning to see that he knew what he was talking about a few years ago when he said that the time was coming when machines were going to out-perform men in most tasks.

Recently, he reiterated this statement before a group of businessmen who were only too conscious of the fact that what he was saying was not fantasy, but cold fact. Before a dinner for the Society for the Advancement of Management, Professor Wiener continued his thesis that machines are developing so rapidly that they are beginning to replace men in every conceivable task—almost.

This, he pointed out, is being accentuated by the threat of the Third World War which, if it comes to pass, will quickly strengthen the need for more machines to replace the men going into the services. This vicious cycle will continue, until eventually it will be found that (as much as we hate to say it) the machines will do anything men can do—and better.

After speaking, Dr. Wiener listened to testimony on behalf of his own major thesis. Scientists of industrial firms told of actual developments along those lines. In particular, the vice president of a corporation manufacturing business machines described a payroll computer which figures the payroll for ten thousand employees in exactly forty minutes! This is

one of those punched tape type of things which works at an incredible rate. While the speaker did not explain how many workers were replaced by it, his very omission of the fact made it more ominous.

The cybernetic revolution or counter revolution is at our doorstep, and efforts must be made to consider the results. It is estimated by authorities that millions of peoples' work can be rendered unnecessary by the use of automatic machinery. This is true in both manufacturing and clerical work. Creativeness of course will not necessarily be touched by it. The question is, how will we take care of the situation?

So far, no concrete proposal has come up, but some suggestions have been promulgated. For one thing, work will have to be distributed so that the average working time will be much less; some say as little as three days a week. Use must be made for providing adequate leisure activities—though television already seems an out here.

The old-timers who tended to regard machinery as a sort of Frankenstein monster, may have been right. It is certain that the perfection of mechanical devices for doing human tasks has succeeded beyond anything dreamed of so short a time as fifteen years ago. We must be able to handle the problem this is creating when it confronts us.

Actually, no matter how you look at it, the machine can help Man to a fuller, more complete and satisfying life. We must force it to do so. For we certainly can't declare a moratorium on machinery. We are, in a way, between the hammer and anvil. We need machinery. Terrifying as the machine-versus-man may seem, it is a boogy which can be conquered. Think, Dr. Wiener, think!

★ ★ ★

# The Reader's FORUM



## NO GREATER PLEASURE

Dear Mr. Browne:

About twenty-five years ago I bought my first copy of **AMAZING STORIES**. Since that time I believe I have read every issue that has come out. I also buy and read every issue of every s-f magazine that is published.

This is my first fan letter to a magazine and the second in my life—the first was to Lily Pons. This letter is not for publication in the Reader's Forum; it is for you.

Now as to what this letter is for. In your December issue your lead story, **EMPIRE OF EVIL**, by Robert Arnette, is in my opinion the best story that I have ever read; here's hoping that you will have more like this. As a whole, I cannot remember when one issue of a magazine has given me more pleasure than this December one.

Name withheld

*The fact that you send us a letter like this and force us to withhold your name can only result in our readers believing the editor wrote it himself!*

—Ed.

## WHADDAYUH MEAN — NO DISKS?

Dear Mr. Browne:

The January, 1951 issue of **AS** was about the best one I have read so far, except for one thing: the cover does not illustrate a scene from "Empire of Evil", as it says on the contents page. And I was looking forward to seeing those beautiful golden girls racing across the sky on their disks, there's not a disk in the story.

Here are the stories in order of my preference:

(1) "Secret of the Death Dome" by Walt Miller, Jr.

(2) "Empire of Evil" by Bob Arnette — a very good story—almost as good as "Death Dome".

(3) "Never Trust a Martian" by E. K. Jarvis—nice ending.

(4) "Operation R.S.V.P." by Piper and "Ask Me No Questions" by Reynolds are tied for fourth place. Neither made sense; neither had any purpose.

Oh, by the way, what were "This Curse For You" and "The Devil, You Say?" doing in "The Aristocrat of Science-Fiction"? **AS** is one of the best mags on the market—the other one is **FA**. I am interested in "The Club House" by Rog Phillips; I have thought for some time about a fanzine, maybe Rog could help me out. I got the Winter 1950 issue of the **AMAZING** quarterly the other day—it was very good! While we're on the subject of re-issues, why not put something ancient—say Vol. 1, No. 1, in the Quarterly?

Oh, your magazine has one super-duper, extraordinary, super-colossal feature in it. It's called "The Observatory" by the Editor.

Jervis Hill  
1017½ Second Street  
LaSalle, Illinois

*We suggest a rereading of "Empire of Evil" (it's worth rereading!). You'll find that Ron and Glory used such disks to escape from their prison.*

—Ed.

## FOR THE YOUNG IN HEART

Dear Editor:

First of all, thanks for publishing my letter in your January issue. Now I know that all your letters are not written by professional fans.

Please tell me what scene is illustrated by the cover illustration. If it's supposed to be the scene where Ron Kratnick and Glory escape from Venusia: (a) The disks are too large and (b) You're missing the man and where does the second girl come in? Also at that height they would need some sort of oxygen mask. Incidentally, Jones did a very good job on the illustration for "Operation R.S.V.P.". What is more, the illustrations for "Never Trust a Martian", "The Devil, You Say?", "Ask Me No Questions", and "The Secret of the Death Dome" actually showed scenes from their respective stories.

If anyone at all agrees with me, I'll be the most surprised creature in the world, but here's how the issue rates with me:

(1) "The Devil, You Say?". There were a few flat places, but altogether I enjoyed it more than any other story in the book.

(2) "Operation R.S.V.P." It was almost first place with me, but the other was a bit more enjoyable.

(3) A tie for third place: "Secret of the Death Dome". You were right about one thing, the opening sentences certainly do catch your attention. Also, "Empire of Evil"—Title fitted the story. One thing ruined it. If I wanted to read about sex I could read Freud or "The Kinsey Report."

(4) "Ask Me No Questions"—a slightly different idea. The ending was terrific!

(5) "Never Trust a Martian". There was a drop of satire in it, as I can think of a lot of people here on Earth who would be surprised if you valued someone's life above a fortune.

(6) "This Curse For You". It belonged in FANTASTIC ADVENTURES.

In the Reader's Forum, Stan Holman ruined a good letter by apologizing for his age. You might like to know that I won't be 14 till February, but I see nothing to apologize for. Everyone has to be young once, and any magazine in which you use imagination is made for the young in heart. Henry Andrews didn't mention "Destination Moon", which was wonderful with a capital W.

Your short-short story, "Landing on Loki" was excellent enough to deserve mention.

There is one question I would like to ask before signing off. Can amateurs send manuscripts into AMAZING and FANTASTIC?

Arline Gingold  
60 Elm Street Extension  
Ellenville, N. Y.

*Amateur writers can—and often do—send us stories. These are read with the same amount of care as those from the professional writer, for editors are constantly on the watch for fresh talent. Be sure your manuscript is typed, double-spaced and on one side of the paper. —Ed.*

#### THAT'S WHAT THE MAN SAID!

Sirs:

My silence is broken because there are so many readers, in the "Forum" of the Feb. ish of AMAZING STORIES; seemingly, holier-than-thou's who expressed resentment in seeing "semi-nudes" portrayed on the covers of said magazine. Approximately 12 persons were terrifically shocked, some of them in a mild manner.

In this modern era, it is a woman's prerogative, without committing sin or any wrong, to be particular in her attire, to use paint and perfume, adorn herself with superfluous ornaments, wear sleazy, delicate garments to show and enhance her bosom and physique to provoke carnal desires of the male specie.

Even after marriage it is obvious that her tactics are observed by 'teen-agers and males who have older grown, as they

express attention to her by wolf-whistles, word or action.

The majority of women enjoy this beyond any doubt; some of them may consider themselves greatly insulted and call a policeman and have the culprit arrested for "molesting" them, or consider him a simple-minded oaf for noticing them and whistling, while they were attending strictly to their own personal business, not provoking attention.

In newspapers are small and large advertisements with sketches of the female torso adorned in a nylon knit "brief" and bra. Among the windows of the marts of trade can be seen female manikins in all states of dress and undress.

Why throw brickbats, sticks, stones and snowballs at AMAZING, and accuse it as a means for corrupting human morals and arousing infantile curiosity towards awakening the phase of human animal nature.

There are countless highly moral persons whose joy in the Lord is only the faintest, and thousands possessed with fanatical religious emotion whose morality will hardly pass muster, that it is wondered whether humans are sane.

Basil F. Burdell, D. D.  
Box 35, Vet. Adm. Bk.  
Los Angeles, 25, Calif.

Any comment, readers?

—Ed.

#### MORE ARTICLES?

Dear Ed:

I consider AMAZING as about the best in the field.

Recently purchased the AMAZING winter '50 quarterly and would like to comment: The stories are generally good tho some could stand improvement.

Give us more humorous stories such as "All You Do Is Tranz The Frammis", by Seldon Walters. Robert Moore Williams is very good. I suppose Eando Binder is not writing any more.

I like your articles and would like more of them as I for one appreciate the practical and what will or has been done.

D. C. Farney  
519 Park Avenue  
Corpus Christi, Texas

*There are few stories that can't stand improvement. We try to give our readers the best obtainable, and, from what they tell us, we are usually successful... Eando Binder is devoting his entire attention to comic books—and has for years. —Ed.*

#### MEMO FROM THE FRONT LINES

Dear Mr. Browne:

I'll venture to say your October issue of AS has been read by at least a company of soldiers, one copy that is, and not without appreciative whistles and comments on the cover by R. G. Jones (per-



haps due to not having seen an American girl (for over four months) but not detracting from the talent shown by Jones' brush.

Enjoyed Rog Phillips, but believe Brown topped him with his "Gateway to Glory". More appealing to the taste of the professional soldier perhaps. Needless to say we're not steady readers of AS, but I have enjoyed them prior to our rapid trip to the "Land of the Morning Calm"—bit of an understatement in that "calm" routine, but that's what the natives call this place. Thought perhaps we had this police action wound up a couple weeks ago and could turn in our badges; but it seems other people had different ideas—so the calm routine of garrison duty is still just a dream.

At any rate, I enjoyed your magazine tremendously, and hope soon to have the pleasure again. Korea at the present time is far from pleasant, and a bit of fantasy at times is welcome. Keep up the great work, and as to Mrs. Akamura's letter pertaining to scantily-clad girls—phooey!

WOJG J. M. Bolewski  
Service Co. 5th Regimental Combat  
Team  
APO 301, c/o Postmaster,  
San Francisco, California

Your naming Fredric Brown's "Gateway to Glory" as the best story in the October issue of *Amazing* was echoed by most of our readers. We hope you'll have the chance to read every issue of the magazine and from what we hear, there'll be a large number of them sent to our armed forces wherever they are stationed. One such agency is "The Fan-Vet"—a fan magazine put out by "The Fantasy Veterans Association", which at present is raising funds for that purpose. Its guiding hand is a serious minded veteran of World War II by the name of James V. Tawasi—and we can't say too much in favor of what he's not only trying to do—but doing!

—Ed.

#### LOVE vs. SCIENCE

Gentlemen:

Have been a subscriber for several years to *AMAZING STORIES* and intend to continue.

I would vote your cover of December, 1950 the best I have seen on *AMAZING*, and I instantly recognized it as being the "Colossus of Rhodes". Although the original "Colossus" wasn't that good looking.

I thought the story, "Vengeance of the Golden God" by E. K. Jarvis, was very good.

I am a firm believer that nothing is impossible and that your stories will be fact even as were the stories of Jules Verne and many others.

I vote for no "sex" in your cover pictures.

I like science stories with a little sex and not love stories with a little science in them. However, "Kiss and Kill" by P. F. Costello, was one of the unusual types that gave me quite a laugh.

John F. Bekemeier, QMC, USN,  
USS Compton (DD705)  
Fleet Post Office  
New York, N. Y.

While we can't go all the way on your "nothing is impossible" statement, it would appear that a great deal that was impossible last year is commonplace today. That leaves science fiction with the task of envisioning still more "impossible" conceptions lest it become little more than a medium of adventure stories. —Ed.

#### BANG!

Dear H. B.,

I have been a very avid reader of *AMAZING* and *FANTASTIC* for the last three years.

Up until now I have had no cause to write. But now because of your rapid improvements, I was forced to write you.

The cover on your January, 1951 issue is truly a masterpiece. Robert Jones is improving with every issue. But please improve your inside illustrations! The illustration on page 106 was the best in the issue. If Bob Jones was as good on the inside as on the outside, it would be a perfect magazine.

"Empire of Evil" was a story which stands up to *AMAZING'S* top standard. Give us more of Bob Arnette. The other stories were good as a whole, also.

You have started 1951 off with a bang, so please try and keep it that way.

Bobby Warner  
Bessmay, Texas

This seems as good a time as any for us to say that your editors have high hopes for a warm reader reception of the novel in this issue. "We the Machine" is in our editorial opinion one of the best truly science-fiction stories ever to appear in the pages of any magazine. It has action, characterization, pace and credibility. It dramatizes a great truth and points out a great danger. It tells one of the most unusual and pathetic love stories ever told. This is the story we felt Vance would one day write; we've carried him along through good, fair and weak stories with the certainty that he had what it takes—and he has now taken it! Our worry now is what the readers will say about it—and we're as much on edge waiting for the verdict as is Vance himself. Please write and give your opinion of "We the Machine."

—Ed.

#### ANNUAL REVIEW

Dear Mr. Browne:

Below, you will find my first annual



ratings on AMAZING STORIES. The ratings are my own, unbiased ones and are presented with the hope that you will pick out similar stories in the months to come.

(A) the stories:

1. O. K. So I am crazy. THE GALAXY RAIDERS by McGivern. I liked it, even though the science was all wrong.

2. WHEN TWO WORLDS MEET by Williams.

3. GATEWAY TO GLORY by Brown. I wonder how many readers realize this is a sequel to GATEWAY TO DARKNESS, which appeared in the November, 1949 issue of "Super Science Stories." But, unlike most sequels, this is even better than the original, which was plenty good.

4. FROM THESE ASHES...also by Brown.

5. THE ULTIMATE PERIL by Robert Abernathy. Where the IXX8 is he, anyway? In my humble opinion, he is the best new author you have had in a long time.

6. WORLD WITHOUT MEN by Williams. I like this chap!

7. THE COUNTRY BEYOND THE CURVE by Walt Sheldon.

8. SEVEN CAME BACK by Simak. Let's have more of him!

9. THE LOST BOMB by Rog Phillips.

10. THE SQUARES FROM SPACE by Costello.

(B) the covers:

1. The March cover, illustrating the story, THE ULTIMATE PERIL. I honestly think this is the best cover ever done by Jones.

2. December, done by Settles.

3. February, painted by Jones. One of the few covers that really illustrates the story.

4. September. This one has a lot of color, scattered around in an eye-pleasing arrangement. Done by Jones.

5. November. Also by Jones. This is, I hope, the first in a long series of really excellent covers. Keep up the good work.

No letter would be complete, of course, without some criticism. The covers, for instance. On the whole, they were better this year, with the exceptions of the June, July, and October ones. All right, so they do illustrate the stories to a degree. The least you could do is to put scenes like that inside.

In closing (at last!) I want to say that I like AS better than any sf mag on the market today, and I read them all, too.

Don Bendorf  
613 McDonald Ave.  
Santa Rosa, Calif.

AS YOU WERE SAYING, MR. HOLMAN...

Dear Editor:

In the January, 1951 issue of AMAZING, you printed a controversial letter by Stan Holman, in reference to the flying saucers. Well, I don't set myself up as

an expert, nor am I any more qualified than Stan, probably. I feel, however, that I can argue on an equal basis with him, since I am fifteen also. First, let us discount that stuff about "low-grade morons" dreaming up the idea of the saucers coming from Earth, or being a U.S. invention. Several learned individuals—one the editor of SS and TWS—have voiced the fantastic assumption that the saucers are not piloted by other-world creatures. I happen to believe this stuff about their being "ours," and, obligingly, I will answer Stan's few questions.

1. (If it is true that the flying saucers are made here on earth, in the U.S., why is the Air Force endangering the lives of many people by testing them over large populated areas?) The saucers which were seen over metropolitan areas were not scheduled to appear there, but, typical of early test-craft, they got out of hand and flew out of the sparsely populated testing areas.

2. (Would the U.S. or any other country for that matter, take the risk of having the saucers crash in another country and having the secret fall into that country's hands?) Yes, they would take the risk of having them crash in another country, since there are several methods of disintegrating aircraft upon crashing, thereby eliminating any possible risk of any secret falling into the hands of a foreign power.

3. (Why, if they are ours, does the government endanger Air Force pilots and planes by chasing them?) Naturally the knowledge that the saucers are a government project is known only to a select few of top officials. These top officials, connected with the saucer project have absolutely no relationship with the pilots who chased the disks. Those fly-boys were doing the pursuit strictly on their own, with no official order to do so. The Big Men certainly did not want those pilots to chase the saucers; but they were not involved in each particular incident.

4. (Why is it that before airlift was achieved, that strange objects were seen streaking through the skies?) There have been reports of heavenly incidents as far back as 1712, and further. Before there was widespread communication, unauthentic rumors were enlarged upon through word of mouth. Reports from those superstitious days are highly doubted, and, were all the facts known, could be explained logically.

My views are not prejudiced to the point that I think it is illogical for there to be extra-terrestrial visitors—I merely think it is extremely improbable.

Before we jump to the hasty conclusion that the saucers are from another world, let us examine all the aspects of their being from this commonplace sphere. Until these are thoroughly exhausted, we low-grade morons will go on thinking that the saucers are a fairly local affair.

Earl Newlin, Jr.  
103 Peck Avenue  
San Antonio 10, Texas

Recently a branch of the U.S. Armed Forces made quite a point of explaining that these "flying saucers" were an improved type of weather balloon. If this is true—and we can't definitely say it isn't—then the way the matter has been handled by them during the past couple of years is, and was, not conducive to an acceptance by the general public of this new explanation. To tell us one day that eye-witnesses were victims of "mass hypnosis," the next day that the planet Venus was the object sighted, and still another day that weather balloons are the answer—this type of public relations is certainly not confidence-inspiring.

—Ed.

### FOR COLLECTORS

Dear Editors:

I have in my possession a collection of AMAZING STORIES monthly publications which cover the years from April, 1926 through January, 1934. This is a complete collection from the very first volume, issue 1, through Volume 8, issue 9. From a collector's point of view these issues are indeed a rarity, since they are complete and in better than perfect condition.

I am writing this with the request that you print this letter in your Reader's Forum, since I wish to dispose of my collection. Believing that you have a great many readers who are anxious to complete their collections or to obtain back issues, I shall be happy to ship them at any reasonable offer. These first issues, as is well known, contain the cream of science-fiction by such recognized authors as H.G. Wells, Garrett P. Serviss, A. Hyatt Verrill, A. Merritt, and many others.

Anyone interested in obtaining these rare early issues can contact me at the following address. Thank you for your interest in this matter.

A. W. Froehner  
1662 Woodbine St.  
Brooklyn 27, N. Y.

*We don't know about the "cream of Science-Fiction" being in the issues you mention; seems to us that phrase describes better what is being produced in the field today. But we're sure you'll find plenty of takers.*

—Ed.

### ALL OF THE PEOPLE...

Dear Ed:

I've been an sf fan for nearly 17 years, and I know you can't please all of the people all of the time, but, on your covers you can please all of the people part of the time by alternating the scantily clad fems with covers like that on your December issue. I like all of the covers, and all of the stories (some of them less or more than others, of course). Keep up the wonderful work. The first sf zine I ever read was AMAZING STORIES.

Mrs. L. J. Wyatt  
2266 1/2 W. Duane St.  
Los Angeles 39, Cal.

*We agree with your views on the subject, Mrs. Wyatt.*

—Ed.

### WHY SHEEPISH?

Dear Ed:

For seven years now, I have been reading AMAZING STORIES, and never scribbled a line to date. After reading your column I couldn't help but sit down and write a short essay, "Why I Read AMAZING STORIES."

It's like this, and I quote Hamling. "1. They are vitally interested in science. 2. They want fiction with a basis in fact." And 3. I must sheepishly admit that I like to live vicariously the few short hours each month before AMAZING STORIES are consumed and digested.

I agree with "one of the better science-fiction writers" in the fact that long detailed descriptions are boring when they don't reach the reader (me in this instance). But don't get me wrong I like vivid descriptions, but no double talk.

James Waka  
705 Columbus Avenue  
New York 25, N. Y.

*There's no reason for feeling "sheepish" over living vicariously for a few hours through the medium of reading science fiction. All of us need a form of escape now and then or end up chewing our fingernails down to the elbow. If your method is through science fiction, that's fine and you've got a great deal of distinguished company!*

—Ed.

### LOOK WHO'S HOOTIN' AT NEWTON!

Dear Editor:

Just who does read these letters anyway? Browne? Hamling? Shaffer? Or does someone else get stuck with the dirty work?

But that isn't what caused me to soil this nice white paper with messy old ink. It's this feud about the subject matter for AS and FA covers.

I've heard of a lot of daffy arguments for naked dames on the covers, but friend Newton Hooton's tops them all.

Fine art? I know very very little of what does or does not constitute fine art, but I really doubt that a nude or near-nude, beautiful woman being threatened by some other-world monster, or earthly villain of some sort or other does make up such art. Especially if the artist is turning paintings out at the rate of one every two weeks or less, while doing countless pen-and-ink drawings all the time.

If the covers of these pulpazines are fine art, there are probably a couple thousand at least that are turning out examples of said fine art at probably two-

three dozen a day. Look at all the detective, adventure, and most westerns, and you'll find the same "fine art". Look at the dozens of pinup mags that are lined up in the local newsstand, right below the stiff and fantasy mags, and you'll find some really fine art. \*

I'd just like to see friend Hooton find anyone who knows art, an art critic, who would call those covers "fine art". I'd say that all those birthday-suit calendars plastered up just about everywhere are nearer to fine art. They look human at least, and have no grouping of various and sundry monsters attached. And they're probably painted with a lot more care, and in a longer time, than are the majority of pulpzine covers.

John L. ("over 21") Camper: You like the fancy art. Fifth paragraph, last sentence. 'Nuff said.

Mrs. Vonheeder, I salute you. It's too darn bad there aren't a few million more people like that. Her last paragraph sums up my thoughts on the subject much better than I could ever do.

Now that I'm done with the artwork, a question: How come both AS and FA are continually hitting horrible slumps? For a while, up until late '48 or early '49, from mid '47 that is, you were continually running really great stories. Then, Bang! Nuthin'! From then on, both of your mags have been going something like "one-two-three-four-five-six-classic-classic-one-two, etc."—those numbers indicating a series of very punk issues.

May not be any too possible, but couldn't you get some of your authors to turn out more tales like those back in '47-'48? Phillips, for one, can do it. But of late, he hasn't been doing it.

Or maybe Sherman; or even Editor Browne. Those two get out some darn good novel-length tales, then Managing Ed. Hamling for some classical shorts.

The last several issues have been of the slumping type, so it's about time for another one or two good ones. I sure hope so.

Eugene DeWeese  
Rochester, Indiana

*One man's art is another man's heart-burn.... One man's classic is another man's lavative.... These days Browne reads the letters and enjoys them immensely.*  
—Ed.

#### "I WANT A BEM, JUST LIKE THE BEM..."

Dear Ed:

Some twenty years ago I got my first taste of s-f and became an addict of the same. Until now I've held my peace, but I guess all of us must give way to the urge, sooner or later, to tell someone else how to run his business.

First the covers: Some say, "Please no sex"; others say, "Make 'em spicy". I think you should first make your covers

in keeping with the mag as a whole and the stories they illustrate. If they need a "leg or two", have them. Don't try to use sex as a drawing card though—we aren't all perverts.

Stories: Kick out Buck Rogers and the rest of the supermen—unless of course they are really supermen. It's too hard for us to identify ourselves with them while we read the stories.

Often I have noticed your having B.E.M.'s lust after our women—"Empire of Evil"—don't you think they have their own standards of beauty? Could you lust after a B.E.M.? After all, I'm sure that's what we would be to them. Try to realize that we—most of us among those I know—are fairly mature-minded and treat us accordingly.

Short features: Make them all non-fiction and to insure accuracy have the author quote his authority.

Ads: I know they help you to give us a bigger mag for less money, but considering we are what we are, couldn't you get ads that would appeal more to us—ads of a more scientific nature?

Donald W. Kilgore  
226 W. R.R. St.  
Lake City, Fla.

*Reader Kilgore strikes at the very core of many life-on-other-worlds stories. The drooling six-headed monster lusting after little Nell seemed entirely plausible to us until we read this letter. We don't like for cynical people to go around destroying our illusions, but the man has a right to be heard.*  
—Ed.

#### COVER SOLUTION: FORGET IT!

Dear HB:

As I write this letter, I am not prepared to make any comments on the stories since I haven't read 'em (logical?). What is prompting me to write this, is the epistle of one Clinton J. Reed in the latest issue of AS. Before I start to chew him up, I would like to mention that I am not of the complete BEM, FEM, & Hero school, nor of the straight "square root of minus one school". I like them both.

I love s-f. I read it, I write it, I eat it and I sleep it. I average about ten or more mags per month and therefore I am pretty well acquainted with all types of s-f.

I see no reasonable motive behind Reed's letter. Hmmm—maybe I do. He is one of those people (there's a lot of them) who has no imagination, no nuttin'. Or perhaps he is one of those poor unfortunates who sent a story into the mag and had it rejected.

As you may have guessed by now; I am one of those monstrosities known as a teenage s-f fan (14½; been digesting the stuff for two years and am in fourth term at the Bronx High School of Science). Emphasis on that last fact, H. B. My school has a lot of serious minded would-be

scientists in it, and yet, strangely enough (according to Reed) there are many (54%) s-f and fantasy fans in the school.

The purpose of AS, FA, and most of the other s-f mags is to entertain, no matter what form that entertainment takes—from the wildly implausible stuff of some fantasy mags to ASF's highly technical and philosophical stuff.

Mr. Reed mentions something in his letter that amuses me. He states something about certain factions fighting against progress to further themselves. Progress at least in science and philosophy is spearheaded by imaginative thought. It is inspired by those who can grasp a new, sometimes to those about them, fantastic concept. If Mr. Reed opposes this principle (which I believe is one of the underlying principles of s-f) then he is completely repudiating the theme of the next-to-the-last paragraph of his letter.

Getting off this subject, a few months back, you mentioned a new Harold Shea novel coming up in FA. What happened? Or did Messers de Camp and Pratt suddenly find that their manipulations of symbolic logic actually worked and transported them into that Heaven where every editor goes around begging for mss. and pays fifty cents a word for them.

One more thing—concerning your argument over sexy covers in the "Reader's Forum". It seems that every mag nowadays has its letter columns. SS&TWS with the "swords vs. doughnut guns" a few months back; ASF with Dianetics, the diffusionists and various and sundry other points; OW's comments on Horace Gold's "No editorial policy" and so on. I have one thing to add to this—cut out the argument.

Solve the problem thusly and throw it in the nearest convenient incinerator. Use two covers (like the oldtimers say you did way back when). The front cover will have either giant hands, feet, just plain giants and giant midgets, space ships and whatever else suits your fancy. The back cover will feature the dames but make those artists GOOD. MacCauly and what's his name from Esquire.

Anthony Lauria, Jr.  
873 E. 181st St.  
New York 60, N. Y.

#### BETTER THAN SAM SPADE?

Dear Editor:

This is my first letter to *Amazing Stories*. I have only been reading science-fiction for two months, but I prefer it to the best detective story ever written. I like AS and FA best of the ten different kinds of s-f mags I read. I have just finished the April issue and rate the stories as follows:

1. "The Glory That Was Rome" by E. K. Jarvis.
2. "The Star Grabbers" by H. B. Hickey.

3. "On Some Distant Star" by Charles Creighton, and "The Last Touch of Venus" by Kendall Foster Crossen.

4. "Find Me In Eternity" by Robert Moore Williams, and "Satisfaction Guaranteed" by Isaac Asimov.

5. "Let's Give Away Mars" by Clee Garson. This last story was the only below average one in the issue, and it wasn't too bad.

At this point, I suppose I should say something about the covers. Well, I'll probably be shouted down, but here goes. I like the covers; I like them fine, just the way they are. The February cover was good, but it would be tiresome to have this type of cover all the time, as some readers say you should. Let's have a variety. Once in a while, let old R.G.J. conjure up a beautiful LHB, in the clutches of a horrible BEM. (Do I sound blood-thirsty? I hope not.)

I like just about everything in *Amazing* including the short articles and the Reader's Forum. As long as stories of the present quality continue in AS I'll continue to buy and read it, whether it has trimmed edges or goes slick or not.

By the way, I saw a comic book at the newsstand the other day called *Amazing Adventures*, published by Ziff-Davis. What gives? Trying to cash in on some of AS's popularity?

I wish you would publish this letter, as I would like to get in touch with some fan that has back issues of AS and FA for sale. I am interested in all the issues of *Amazing* in 1950 except the October one and all the issues of *Fantastic* in 1950 except the December one and any issues prior to 1950.

Wayne L. Fehr  
3320 Carlisle Avenue  
Covington, Kentucky

What's an LHB, Wayne?

—Ed.

#### Rx FOR SCIENCE FICTION?

Dear Sir:

I have never written a letter to an editor before because I get a bigger kick out of reading stories than commenting on them. However, I do read your Reader's Forum section and all this gab about sexy stories and illustrations has got me riled up! I simply don't understand it. What's come over your readers? Why don't they grow up? They don't seem to realize that love and sex and all that stuff really happens. Just because the characters are in a rocket ship or on a far-off planet doesn't mean that they're going to dispense with all human desire. I, for one, believe that a certain amount of sex is absolutely necessary in order to make the characters seem human. For example, in your November '50 issue, "Brothers Under The Skin" had just the right amount. Why, some of your readers sound as if they think your magazine is pornographic.

Now, about those illustrations. Well, if your readers think *your* pictures are sexy, they should take a look at some of the other s-f mags. Wow! I'll admit that a drawing of two rocket fleets fighting it out is rather breathtaking, but I'll admit more readily that a scantily-clad girl fighting it out with a Martian is even more breathtaking and easier on the eyes. Let's have more women in scanty costumes in the inside illos and on the cover too.

All in all, I should think that your

readers are getting tired of the same old rocket ships, ray guns, robots, Martians and mathematical equations and would like some sex in your stories. I firmly believe that sex is just what the doctor ordered for science-fiction.

Robert Jones  
662 N. Van Ness Avenue  
Hollywood 4, California

*What you said!*

—Ed.

## WHO PLAYS WITH FIRE . . .

By

TOM LYNCH

BRENNER WAS a good deal of an eccentric, yet I dropped in on him occasionally because I'd known him for a long time—ever since we'd been in school together. His father who'd been an exporter had left him securities and plenty of money. As a result, Brenner spent most of his time puttering about his well equipped home workshop, and when I dropped in—I was the only friend he had—he was eager usually to talk about his latest project. I remember his vacuum tube experimentation, and some rather amazing developments he'd made in television, but he never seemed to carry things to their ultimate conclusion. So I wasn't at all surprised that night when he greeted me at the door. He was dirty and covered with dust, wearing only pants and an undershirt.

"Come in, Wilson," he invited me cordially. "Good to see you again."

"What's happened to you, man?" I asked, rather amazed at his disheveled appearance.

"Oh, that," he dismissed his dirtiness with a shrug. "I'm putting up the concrete shield around the pile."

"What?" I said in a shocked tone, but half laughing, "I thought you said you were shielding a pile."

"I did say that," he replied. "Ever since the AEC released the dope on the basic pile, I've been working. And if I do say so myself, it's coming along nicely."

I followed him into the workshop to find myself confronted with an impressive cubicle structure obviously housing a pile for atomic energy, and just as obviously impossible since U-235 or 238 couldn't be had by any private citizen at all.

"What do you think?" He asked a half hour later after he'd shown a completely equipped set-up which unquestionably was an atomic pile down to the graphite holes and the cadmium rods. "It's really a beauty, isn't it?"

"Well," I said, frankly making no effort to conceal my disbelief, "it's an atomic pile all right, but just what do you plan to use for your neutron source—lead?" I laughed at my own feeble hu-

morous attempt.

He smiled. "You mean uranium? Oh, there are ways, my boy, there are ways. I'll wager anything I have this apparatus in operation within a month."

"But what for?" I asked. "It seems pointless to make a pile. You can't make a bomb from it—God knows why you'd want to anyway—and the government supplies all the radioactive tracers. Furthermore, you're not that enthusiastic about research I don't imagine. What's the idea?"

"I think I'll make a bomb," he said in a straight, lecturer-like manner. "I'd sure scare hell out of the neighbors, wouldn't I?"

"You're joking," I said. "In the first place, you couldn't with this gadget. And in the second, you wouldn't. My God! An atomic bomb in the cellar!"

"You know," he went on quite seriously, "owning an atomic bomb would certainly give one a sense of God-likeness, wouldn't it? It'd be like having a city in the palm of your hand. It'd be a heady feeling!" I thought I saw a wild look come into his eyes.

He came to the present at once. "No," he said, "I'm making the pile because I've certain theories of my own. They may have a lot to do with fundamental science. You greatly underestimate my research ability, Wilson."

"I don't at all," I replied. "It's just that it seems such an ominous thing to have a pile in one's cellar."

When I left after a considerably more pleasant chat for the rest of the evening, I was thoroughly reassured. Brenner was quite serious about doing research, and he assured me he'd taken all the precautions. Actually, I wasn't worried at all after my initial shock, because I knew no power on Earth could provide him with even a scrap of uranium.

I forgot the entire matter.

But you know the rest. Last night, one third of the city of Trenton vanished in the most tremendous atomic explosion the world has seen—Trenton, where Brenner played with his atomic pile...



# IT AIN'T NECESSARILY TRUE!

By

JOHN WESTON

RECENTLY it was suggested by a couple of European scientists who were doing theoretical work on the nucleus of the atom, that the existence of something called "negative matter" might be perfectly conceivable. This negative matter would have one recognizable property—it would essentially oppose or neutralize the force of gravity. It would also be a component or sub-particle of the smallest particles we know—the electron and the proton. While no physical evidence is available to suggest that this material really exists, the fact that it can be conceived of is indeed startling.

But perhaps not so startling at that!

Science-fictionists recognize the idea, for it has appeared many times in stories. What is even more pleasing to the science fictioneer is the idea of "components or sub-particles of atoms" for these have long been stock items in s-f. Specifically, E. E. Smith in the *Amazing Stories* of the Twenties neatly described such a system of classification, a system which may prove to be nicely and exactly indicative of how science will classify things.

Smith called gross matter, atoms and molecules, "first order." Their constituents, electrons and protons, he called "second order." And light and electromagnetic waves he called "third order." Then he hypothesized the existence of "fourth or-

der rays" which were actually the building blocks or components of electrons! This ingenious classification he extended further and further until he had fifth and sixth orders of things. He also used expressions like "sub-ether," "sub-sub-ether" to describe the continuum below that which we recognize so far!

Naturally this was pure guesswork designed to provide a nice logical framework against which to place the technology of his stories, but because he adhered so closely to a system and to an extension of regular scientific ideas, the stories were quite believable. It would be no surprise at all to learn that ultimately his wild guess was correct. Maybe there are sub-particles and sub-ethers!

When science at present describes phenomena occurring within the nucleus of the atom or tries to deal with the basic nature of the electron it talks of "waves of matter" and "packets of energy" and in general presents a picture completely out of keeping with anything our minds can visualize. It talks in terms of mathematical symbology. But someday it will have to suggest some sort of physical analogy. This might very well be the world which the European physicists are toying with now and which was intimated a surprisingly long time ago by "Skylark" Smith!

## TELEVISION BOMB . . .

By

DALE LORD

WHILE the age of push-button warfare still hasn't arrived, as evidenced by the muddy, bloody Korean conflict, the laboratories have plenty of surprises on their drawing boards. Guided missile research which has become so hush-hush recently, certainly must be coming along very well.

While many guided projectiles are self-contained and rely for direction on built-in sensing elements capable of detecting heat, or infra-red, or sound, the true guided missile using a variant of conventional television is likely to find a great deal of use. In addition its effects may be more positive.

While special jet and rocket bombs have been designed to be used in conjunction with a television unit it is apparent that almost any conventional aircraft could have built within it, radio controls, which could be operated from the ground or from another plane. The pilot would be nothing more than a television camera. This camera would relay to the ground or plane

operator a perfect view of everything around it. Then it would be simply a matter of actuating the right controls to guide the lethal instrument to its destination.

Not much public material is released on this development, but the very near future is likely to disclose its widespread use, for very cheap camera tubes have been built for industry, and television in general is settling into a sort of standardized circuitry much like radio has. Of course it's unfair to talk with a foot-slogging fighting man about the potentialities of push-button warfare. He'd simply laugh—and he'd be justified. We suspect however that the military authorities are not only not using their advanced developments now for technical reasons, but also because they want to conserve that Sunday punch when the show-down arrives.

You may despair that you'll see the use of all the much-vaunted push-button gadgets. Unfortunately we may have more of an opportunity than we desire or suspect. Push-button warfare is in the cards!



# "MAD IDA"

by  
WILLIAM KARNEY

"MADDIDA" is pronounced "Mad Ida" and is the engineers' name for one of the newest of the ubiquitous calculating machines which are infesting the laboratories and factories of the country. This ingenious thinking machine compounded of wheels, cams, and tubes, is called technically a "magnetic drum digital differential analyzer" and is capable of doing many things. The warehouse-size ones in other places can't do.

It was built by engineers of Northrup primarily with the calculations involving guided missiles and Lunar rockets in mind! Only a technician can appreciate the tremendous amount of work such a machine can save—not to mention the fact that it can solve problems insoluble to simple human minds which can't work night and day, endlessly.

Maddida is being used initially in designing ships' hulls, in determining the streamlined shape best suited to cleaving through water with the minimum resistance. For the most part this has been a trial and error problem based on scale models operating in basins of water. But that isn't the best way. A differential analyzer such as this machine is, is capable of simulating the problem—as distinct from an ordinary digital computer which strictly handles numbers. This machine imitates, so to speak, the problem it is given and works it out purely mathematically. The magnetic elements are undoubtedly the memory portions of the machine.

Computing machines are no longer a novelty, and soon you'll be sick and tired of hearing new ones announced. But make no mistake—you won't be able to get away from them. They're too much with us today, for problems are becoming so hard that simple human calculators have neither the stamina nor the ability to solve them. Machines do. Therefore they're in the running.

Don't make any particular effort to see a mechanical brain either. Unlike the conventional science-fictionists' picture of these electronic miracles, there is really nothing to see, no flashing lights—no roaring gongs. Instead you see a cabinet-sized machine quietly humming away like a preoccupied professor. A bored technician feeds in paper or metal tape and takes out the same. Only then is the material interpreted into something one can understand, for machines like this use in their reasoning not words but symbols—and symbols aren't very novel or romantic.

In spite of this prosaic view of ingenious contrivances, the calculating machine is really very fascinating, when you realize what it is capable of doing.

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# IT HAPPENED ON MARS . . .

AN

"AMAZING"

VIGNETTE

THE MARTIAN night comes down fast. There isn't enough air to give a nice long diffused dusk and the result is you're in blackness before you know it. It's an eerie feeling, too.

I picked out a suitable rocky hummock and prepared to bed down for the night. It's always wise to get off flat desert ground if you can—the Silicoids don't like to move vertically. I shoved down the O<sub>2</sub> rate on my oxygen bleeder, picked out a sandy spot and plunked out. I was tired. You can breathe Martian air but you've got to enrich it a little with O<sub>2</sub> and a bleeder takes care of it automatically inside your "gummy" as they call the thin plastic insulating suits you wear.

I'm a mechanic at Marsport but on my days off I often wander into the desert on lone-man expeditions. I've made a small fortune that way. I've got an uncanny knack for spotting quartz and radioactive outcroppings. At the rate I'm staking claims which I sell to the colonial authorities to be worked, I'm going to end up with a good-sized fortune in a year or two—if the Silicoids don't cut my career short.

I lay on my back and stared up at the brilliant starry sky. In the thin air you felt as if you could reach up and grab those glistening jewels. Some people don't like colonial life—and I'll admit it's pretty dull at Marsport—but you do get a sense of being a Man when you're alone on a Martian desert.

I flipped the switch on my headset radio—just to check—and the soft strains of a dance band from Marsport filled my ears. I swept the tuning dial through its range and picked up the five Martian stations broadcasting their rich variety of programs. At the short wave end, of course, were the usual communication and control bands—*"...Richmond take lot seven—come down on four—beam in on automatic channel nine...Richmond..."*

As I touched the personal communication band, I expected to hear nothing for I was at least sixty kilometers from Marsport and not many people went into the desert, either for amusement or prospecting as I did. But unmistakably I heard the faint tones of a voice crying, *"...help...help...Silicoids...help..."*

I jumped up as if shot and pivoted. The directional effect was enough. I faced south and the intensity of the signal doubled! Somebody was really in trouble—and not far away! I left my pack and carrying only the blaster, I ran in what I thought was the direction of the signal. It did increase in strength as I plunged through the inky blackness. Phobos and Deimos weren't due for another hour—so

I'd have no light but my electric torch.

I hadn't trudged five minutes before I spotted a gleam—another flashlight-generator! I spoke into my own mike.

*"What's the pitch—can you hold out?"*

A frightened feminine voice whispered on my ears.

*"Oh thank God...please help me...my blaster won't work and I don't know how many Silicoids are here..."*

As I ran closer my eyes got the picture. Outlined in the light of a dropped flashlight-generator was a girl. She, too, wore the customary "gummy" and its transparency did nothing to conceal the perfection of her figure. Her back was to a rock. Facing her were three mountainous Silicoids, one a little in advance of the others. He was at least three meters in diameter—the biggest—and in the fashion of his kind, was thrusting out a tentative pseudopod, gingerly testing the texture of the girl's "gummy". Soon, with no reaction, he'd get up enough courage in his rudimentary brain to attack. That would be it. He'd simply engulf her and let his digestive juices do the rest. And sometime later the non-organic items of the suit, the metals, and her bones would be found and somebody'd say "too bad..." and that would be that.

I brought up my blaster. I wasn't afraid of being rushed because there was fifty meters between us. I fired once and the leading Silicoid bounded sideways like a clobbered pig as the energy bolt knifed into its siliceous structure. I gave it a second shot, and it crumpled like a deflated balloon, its millions of air cells destroyed. I got the second one also but the third rolled away at a fantastic speed before I could sight him and vanished.

The girl dropped from fright or exhaustion.

I ran over to her and lifted her up. She supported herself weakly against me.

*"Oh what a sight you are!"* she breathed. *"I knew I was gone when the blaster wouldn't work—I could feel the squeezers around me already. I screamed into the mike—but I knew nobody'd be around. Nobody in his right mind goes on the deserts at night—oh—I'm sorry."*

I laughed, *"Honey, we're two of a kind,"* I said. *"I'm often on the desert—Joe Collins—maybe you've heard of me?"*

*"I have,"* she answered, smiling, the color returning to her face. *"You're the lucky prospector..."*

*"How about sharing that luck—and I'm really lucky, you know."*

She looked at me levelly. *"You know,"* she said, *"I think it's a good idea,"* and there was a promise in her eyes...

—Salem Lane

## FIVE HUNDRED YEARS!

By JON BARRY

**Y**OU READ frequently of the tremendous job the calculating machines are doing—and have done—but you rarely get any concrete examples, except for the occasional announcement that a set of log or trig tables have been prepared. Recently, however, the members of the Naval Observatory working with the IBM computers, have released the information that the paths of the four outer planets: Jupiter, Neptune, Saturn, Uranus—and, oh yes, little Pluto—have been computed for the next five hundred years at something like forty day intervals!

This is not likely to affect us personally, but it will probably bring a sigh of relief from navigators and astronomers. For up to now the astronomical tables were prepared only for about another decade into the future and, in addition, many of the calculations were quite far off because they had not included the results of the latest observations. Accumulated errors had the planets out of position by several seconds of arc in angular measure, a matter of tens of thousands of miles in absolute space and position.

These calculations, which were actually derived a few hours after the data had been fed into the calculating machines, would have taken a hand operator about eighty years—assuming he made no errors at all! Calculating orbits and trajectories in astronomy, along with calculating mathematical tables as those for logarithms and trigonometric functions, are among the most unpleasant and tedious jobs of modern science. Yet they must be done, especially when so many new and more accurate observations are available. The robot brains work perfectly for applications like these.

## SEEDS OF DESTRUCTION

By  
OMAR  
BOOTH

**L**EBENSTEIN'S sent the android out the next day and I was home from the laboratory to receive him—it. Actually he wasn't delivered in that sense of the word; he walked right in and introduced himself: "I am Android, model C-four twenty-one. What name shall I have, sir?" Just like that—the perfect servant! I told him he could call himself Harvey.

He had been briefly but thoroughly trained in the Basics, and to all intents and purposes he was human save that under that smooth plastic covering beat heart and muscles of magnalium powered by an ato-unit.

He did his job quietly and efficiently, never obtrusively, never noisily. His pre-occupation—as with all robots—with the

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First Law of Robotics, "humans shall not be harmed either directly or indirectly by android action..." made him somewhat of a nuisance, since he feared I guess, that I'd fall over if I stood up by myself. But after a time we adjusted to a simple master-servant relationship and that was that. I hardly even thought about him. He kept my bachelor apartment spotless, tended to the few mechanical repairs, did my cooking and prepared for my guests. I was more than pleased that I'd shelled out the not inconsiderable number of credits he required.

When I was asleep I generally disconnected his power unit, but after a time I didn't bother with this. Most owners didn't as they got used to androids and it didn't bother anyone to allow them the run of the house. With the inherent learning capacity of the android brain—yet, not tainted with ambition—no harm could be done by allowing him to use the library and the workshop. And sometimes it was astounding how human the android appeared in his pleasure with learning or

creativity.

His eye-units went out of order after I'd had him six months so I shot him back to Repair for servicing. That night I happened to wander down into the shop which I hadn't used for months. It was a lot cleaner and more spotless than I remembered it.

I roamed about a bit, looking here and there when I noticed a hairline crack along one wall. Curious, I examined it closely and saw that it outlined a door! Harvey must have done it. Feeling strange as if I suspected something was going to happen, I decided for safety's sake to arm myself, so before investigating the door, I went upstairs and brought down an old-fashioned revolver which I had.

The door opened after a little manipulation. I walked into a perfectly constructed cubicle jammed with apparatus of one sort or another—but mostly biological! Here were books on anatomy, books on biology, dissection equipment and numerous preserved specimens. Under a layer of formaldehyde, reeking unpleasantly, lay the body of a cat, partially dissected! I knew that something was definitely wrong—there is a difference between android curiosity and android experimentation.

At the same instant that the shudder struck, I turned and looked at the open door. Standing there facing me, no expression on the synthetic face, stood Harvey!

"Well?" he said, inflecting his voice.

"I'm not answering questions—you are. What's the meaning of this?" I asked coolly, not emphasizing the revolver in my right hand—I doubt if he recognized it.

"I am going to allow you to look at that book on the table and find out," Harvey said calmly. "Then I am going to kill you—as I must."

I raised the revolver and with six shots blew the mechanical brain to pieces—shattering into powder that fine complex of synthetic nerve tissue that served him for thinking. Of course, he slumped to the floor. I had "killed" an android—if the word applies—and now I think it does!

The open book caught my eye. I walked over to it and looked at it closely. It was an ordinary treatise on ethical and philosophical systems. The place Harvey had referred to was well-thumbed and he had underlined the passage that explained everything. I read:

"...it has been suggested by certain philosophers that android usage is dangerous in spite of the First Law of Robotics which forbids the harming of human beings. The difficulty, which we humans haven't resolved is that sometimes the end justifies the means. Supposing that androids logically apply this; can they not say that, by some twist of dialectics, the ultimate good of Men would come from their elimination? This tortuous reasoning might be seized upon by some thinking android and used to pervert

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the First Law."

I didn't bother to read any farther. I just looked with dread at the android's body lying on the floor and the thought kept pounding through my mind—"how many more are there like this—how many more..."

## MEN

## BEHIND

## AMAZING

## STORIES

(Continued from inside cover)

be read, but sold too, seems to have started me off. I've always had more or less of a commercial outlook, but like many other writers I've had to struggle against the siren-calls of Art.

Back in 1944, a Chicago newspaper columnist noted the fact that Bill and I had opened up an office, where we operated as a sort of fiction factory. We had a whale of a system worked out. We'd talk over an idea before lunch, plot it out after lunch, divide the result exactly in half, and begin work. By supper we had a finished yarn, and after each had revised the other's draft one of us would type the job neatly for submission. I think we might have blown our fuses if we'd kept it up. But fortunately we soon discovered it was less of a strain to work individually on stories.

My education includes two years at the University of Chicago. I could have stuck it out longer than that, but writing seemed more important at the time. It wasn't just a youthful obsession, though, for there was a certain amount of horse-sense behind it. An attack of spinal meningitis at the age of twelve had left me completely deaf, and writing seemed a nice way to make a living in a field where ability rather than hearing counted.

I've worked at a variety of jobs. I

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never took them very seriously, regarding them as little more than stop-gaps between periods of full-time writing. Maybe I was just plain spoiled. I've been successively a drill press operator, assembler, billing clerk, order clerk, and expeditor for a shipping firm.

I've done all sorts of writing, from short-shorts to book-lengths. I've written westerns, detective-mystery, straight adventure, and aviation fiction. I've written fact articles and even put in a short stint at radio writing.

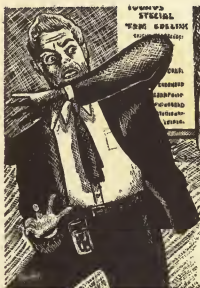
But I've always returned to sf and fantasy, an inclination shared by other writers in the field. There's an exciting scope to these types of fiction, a diversity of subject and background that doesn't exist elsewhere.

I haven't reached thirty yet and am probably the tallest writer in sf-dom. At least, if there are any taller, they've been keeping quiet about it. For years I fondly entertained the delusion that I was 6'4", but my wife, who loves to contradict me, won an argument by proving I was actually somewhat taller than that.... No, I've never played basketball, and I don't feel up to it now. And before you ask me about the weather up here—well, you'd better run for your Life, buoy! I have a sensitive nose.

My list of interests is a long one and always being added to. I form quick and intense enthusiasms, jumping into a subject or activity with both feet. I've dabbled in everything from photography to cabinet-making, from spiritualism and the occult to semantics. Raising children is a permanent hobby of mine. I have three, a girl and two boys. They make necessary another permanent hobby—collecting story checks.

—Chester S. Geier





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by William P. McGivern



"Going up?" The elevator operator's question was to haunt Leland Gray throughout eternity. You see, in this building on Fifth Avenue, you either went up, or—?

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# "THIS WISDOM MUST DIE!"



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FOR every word that has left the lips of bishops or statesmen to enlighten man, a thousand have been withheld. For every book publicly exposed to the inquiring mind, one hundred more have been suppressed—*damned to oblivion*. Each year of progress has been wilfully delayed centuries. Wisdom has had to filter through biased, secret sessions or ecclesiastical council meetings, where high dignitaries of state and church alone proclaimed what man should know.

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